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SOME NOTES ON THE RELATION OF DOMESTIC ANIMALS TO ANOPHELES.

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That domestic animals may be a means of protecting man against malaria was early suggested by certain Italian writers. Bonservizi [1] concluded that domestic animals in the city of Mantua (Mantova) afforded protection to the inhabitants against *Anopheles*. In recent years the subject has been brought into more prominence through the researches of Roubaud. According to this author, *A. maculipennis*, the chief malaria carrier of northern and central Europe, has come to prefer domestic animals to man; it has become "zoophilic" even to the extent of a change in the maxillary dentition; and this change in the blood-seeking habits of the *Anopheles* has been a large, if not the chief, factor in the diminution or disappearance of malaria from certain well-populated regions of Europe, even in the presence of an adequate number of *Anopheles*.

In this connection it has seemed to us worth while to publish a few observations on the relation of domestic animals to *Anopheles* in the United States.

1. THE ATTRACTION OF MAN FOR ANOPHELES AS COMPARED WITH THAT OF DOMESTIC ANIMALS.

In a series of experiments carried on at Stuttgart, Ark., in 1920, man-baited and pig-baited mosquito traps were compared. The traps consisted of sheds with board roof and dirt floor, all of the same dimensions, 8 by 8 feet at the base, 8 feet high at the front, and 5 feet high at the rear. The sides were inclosed with mosquito netting, except an ample space left open at the bottom for the admission of mosquitoes. Three traps were arranged in a row, allowing an interval of 8 feet between each. All were about equally distant from *Anopheles*-breeding rice fields, the nearest of which was about 100 yards away.

The man-baited trap contained nightly one and sometimes two persons (white), rather inadequately protected by a smaller net

[1] Bonservizi, F.: Corriere Sanitario, xiv, 1903, p. 61

placed immediately over the bed. The pig-baited trap contained two pigs not protected by net or screen, except in the last experiment. A control trap, containing no source of blood, was placed midway between the other two traps. Both men and pigs remained all night in the traps, and the mosquitoes caught were collected at dawn. The results of this experiment, which was repeated on four successive nights, are given in Table I.

TABLE I.—*Anopheles caught in man-baited and pig-baited mosquito traps.*

Night of catch	Man-baited trap			Pig-baited trap.			Control trap.		
	A. quadrimaculatus.	*A. crucians.*	Total, both species.	*A. quadrimaculatus.*	*A. crucians.*	Total, both species.	*A. quadrimaculatus.*	*A. crucians.*	Total, both species.
August 5	14	25	39	61	27	88	30	9	39
6	34	132	166	96	30	126	17	3	20
7	112	87	199	109	15	124	23	1	24
8	44	9	53	148	8	156	10	0	10
Total	204	253	457	414	80	494	80	13	93
Percentage females	92.1	99.6	.....	94.2	100.0	.....	50.0	53.9	.....
Percentage of females blood-engorged	11.7	3.2	.....	48.2	43.8	.....	20.0	0.0	.....

Two experiments with the same traps but with no control were carried out on the nights of August 3 and August 4. These gave the following catches: Man-baited trap—*A. quadrimaculatus*, 73; *A. crucians*, 85; pig-baited trap—*A. quadrimaculatus*, 115; *A. crucians*, 50. Including these two experiments, the totals of both species caught on six successive nights are as follows: Man-baited trap, *A. quadrimaculatus*, 277; *A. crucians*, 338; both species, 615. Pig-baited trap, *A. quadrimaculatus*, 529; *A. crucians*, 130; both species, 659.

On August 9, at the conclusion of the first series of experiments, the pigs were put into a screened box in order to test them under the same conditions obtaining in the man-baited trap, where persons were more or less protected by nets. This box was placed in the former control trap, and the original pig trap was left empty as a new control. The man-baited trap contained one person. Unfortunately this experiment was somewhat marred by a thunderstorm with a high wind, to which the man-baited trap was somewhat more exposed than the other traps. The results obtained were: Man-baited trap, *A. quadrimaculatus*, 35; *A. crucians*, 1; both species, 36. Pig-baited trap, *A. quadrimaculatus*, 66; *A. crucians*, 5; both species, 71.

The weather during these experiments was hot and dry until the afternoon of August 6, after which time the nights were moist, but with no rain until about 3 a. m. of August 10. The wind at night was southerly—that is, from the main breeding place toward the

traps—but very little wind occurred until the early morning of August 10, when it blew strongly from the northwest.

Summarizing these experiments, it appears that on some nights the man-baited trap proved more attractive to the *Anopheles*, and on others the pig-baited trap. The totals of all species are nearly the same. *A. quadrimaculatus* seemed to prefer the pig bait 5 nights out of 7 and *A. crucians* but 3 out of 7. The totals of each species indicate a preference on the part of *A. quadrimaculatus* for the pig and of *A. crucians* for the human bait. The numbers, however, are too small and variable to justify any final conclusion in this matter. In sum, there seemed to be no striking difference in the two baits as regards attractiveness for *Anopheles*.

The proportion of females caught in both human-baited and pig-baited traps was high, as is usual where there is a source of blood to attract mosquitoes; and, as might be expected, the proportion of blood-engorged females was highest in the trap containing the unprotected pigs. The night when the pigs were screened, over 91 per cent of the *Anopheles* caught in that trap were females, and only 10.7 per cent of them were blood engorged. There was no other source of blood in the immediate vicinity of the traps.

Man-baited and pig-baited traps were again compared under winter conditions such as obtained at Camilla, Ga., in mid-February. Traps were placed at the edge of a cypress swamp where winter breeding was extensive, and the experiment was repeated on two successive nights. The first night the pig-baited trap caught 11 *Anopheles*, most of which were blood engorged. The man-baited trap caught 8, of which 5 contained blood. In both traps all *Anopheles* were females of *A. crucians* species. On the following night the pig trap was moved to a new place and set as before. The catch was as follows: *A. crucians*, 49—all females and about two-thirds of them blood engorged; *A. quadrimaculatus*—one female with blood. The man-baited trap caught 20 *A. crucians*, of which 7 were blood engorged. During the second night the temperature ranged from 69° F. at 4.30 p. m. to 45.5° F. at dawn. Mosquitoes were observed to bite at various hours during the night, even after the temperature had fallen to 46° F. Two culicines were found in this trap also. In both experiments man and pig baits remained in the traps all night and were not screened against mosquitoes.

Some observations were made to determine whether persons exposed at night to free *Anopheles* in the presence of domestic animals in a stable would be attacked by mosquitoes. A small stable housing about 3 mules and 3 cows was chosen, and 2 persons entered it on a warm night in September shortly after dark. Three *A. quadrimaculatus* were caught while biting the hand, face, and neck of a man

standing within 6 feet of a mule, and a fourth was caught on the face of a man standing 2 or 3 feet from an animal. Relatively few *Anopheles* were flying about.

Further experiments were made by means of a lantern-chimney mosquito cage provided with a special rim so that it could be placed over a man's finger and in direct contact with the skin of an animal. *Anopheles*, all, or practically all, *A. quadrimaculatus*, were placed in this cage and the rim was applied to an area, previously clipped and shaved, on the neck of a mule. A finger was placed in this cage and kept in immediate contact with the skin of the animal. No net intervened between the mosquitoes and the finger or the mule. The surface of human skin exposed to bites was about one-third that of the mule. At first, about 13 mosquitoes alighted on the mule to 3 alighting on the finger; later, the proportions were 15 to 5 and 7 to 4, respectively. Mosquitoes became engorged with blood on both finger and mule. The color of the mule was black, that of the finger, white. The experiment was repeated on the following day with essentially the same results.

2. SUSCEPTIBILITY TO MALARIA PARASITES OF ANOPHELES PREVIOUSLY FED ON PIG BLOOD.

In the course of some infection experiments, opportunity was offered to test the infectibility for malaria parasites of *Anopheles* previously fed on pig blood. A batch of *A. crucians* with a few *A. punctipennis* intermingled was fed on the blood of a man, not a carrier of malaria, and a second batch on a pig. Blood-engorged mosquitoes were separated and the empty ones rejected. Four days later, both batches were exposed to a malaria carrier having many benign tertian gametes. The lot previously fed on pig blood showed a slightly greater avidity for human blood (21, or 54 per cent, becoming engorged) than the lot previously fed on pig blood (18, or 46 per cent, becoming engorged). At the same time a third cage, not previously exposed to any source of blood, was exposed to the carrier. The mosquitoes had all been bred from pupæ in the laboratory. After exposure to the malaria carrier, all blood-engorged ones were separated and the survivors were at various times dissected and examined for oocysts.

Of the lot fed twice on human blood, 8 *A. crucians* were dissected, all of which were positive for oocysts. The average number of oocysts per mid-gut was 155. Of the lot previously fed on pig blood, 13 *A. crucians* were dissected, of which number 12 were positive for oocysts, the average number of oocysts per infected mid-gut being 205. Of the control lot, 12 *A. crucians* were dissected, all of which were positive for oocysts. The average number of oocysts per mid-

gut was 189. No sporozoites were found in the salivary glands of any of the three lots, although some mosquitoes survived 15 or more days after the infective feeding. The temperature at that time of the year (April) may not have been sufficiently high to mature oocysts. Five *A. punctipennis*, all positive for oocysts, were dissected, but are omitted from the totals because none of them occurred in the pig-fed lot.

The results of this experiment indicate that engorgement with pig blood does not modify the subsequent avidity of *A. crucians* for human blood nor materially affect the susceptibility of that species for malaria parasites.

3. ATTRACTION OF RABBITS FOR ANOPHELES.

Legendre [2] states that rabbits are a preferred source of blood for *Anopheles* under certain conditions. During March and April we set a rabbit-baited mosquito trap 6 feet above ground in wood near a pig-baited trap, and later placed the same trap in a barn near a pond where many *Anopheles* were breeding. Some culicines were caught in the rabbit trap but not one anopheline, although numbers of *A. crucians* and *A. punctipennis* were caught in pig-baited traps and in barns in the immediate neighborhood of the rabbits. Under conditions obtaining in our tests, rabbits appeared to offer no strong attraction for *Anopheles*.

4. DOMESTIC ANIMALS AS A FACTOR IN THE PRODUCTION OF ANOPHELES.

Our observations can not throw much light on the question as to whether the increased opportunity of getting blood afforded by domestic animals to mosquitoes leads to a measurable increase in the production of *Anopheles* of a region. Summing up the production of this species in some hundreds of breeding places or potential breeding places examined by us during the past three years, some 25 might be ranked at some period of the year, at least, as breeding places of the first order in terms of the number of anopheline larvæ per unit of water surface. It happens that about 23 of these had domestic animals either confined or grazing at night within 500 yards or less of these breeding places. Of course, many places of low production could be found near barns or pastures as well as more remote from them. In practically all cases, however, domestic animals could be found within flight distance of the breeding places of *Anopheles*. Rice fields, swamps, and salt marshes little frequented by domestic animals except at their borders, often produce very large

[2] Legendre, J. C. R.: Acad. Sci. Paris, clxx, No. 12, 1920, p. 766. Legendre, J., and Oliveau, A. C. R.: Acad. Sci. Paris, clxxi, 1921, p. 822.

numbers of *Anopheles*. There are records of enormous production of anopheline mosquitoes in this country in areas little inhabited. While our observations have done little to elucidate this question, they leave us with the impression that the presence of suitable breeding water is the main determining factor in production of this species, and that the increase in numbers of domestic animals is not likely to make a difference of much weight in the number.

DISCUSSION AND SUMMARY.

Our observations indicate that of the *Anopheles* mosquitoes common in this country, *A. quadrimaculatus* and *A. crucians*, at least, show no special predilection for domestic animals over man when such factors as size and amount of exposure are excluded. The conditions which Roubaud describes as obtaining in France are not present in this country, at all events not in the Southern States. In the milder climate of these States many domestic animals roam at large in pastures night and day, summer and winter; stables are often of an airy construction and are rarely built immediately adjacent to human dwellings. Domestic animals may act as "buffers" in that they satisfy mosquitoes that otherwise might have fed on man, but there is little evidence that the *Anopheles* of this country have become zoophilic in the sense of Roubaud, or that they are likely to become so. It is questionable whether the increase in animal industry, apart from drainage and other concomitant improvements, has been a large factor in the decrease in malaria which has occurred in many parts of the United States. It is unlikely that a cordon of stables could afford much mosquito protection to dwellings, even if such a cordon could be maintained.

So far as the results of one experiment indicate, one would not expect that a feeding on a domestic animal would affect the subsequent susceptibility of *Anopheles* to malaria parasites.

GENERAL HEALTH CONDITIONS AS REPORTED BY THE HEALTH SECTION OF THE LEAGUE OF NATIONS.

The following general summary of health conditions is taken from data contained in the monthly Epidemiological Report of the Health Section of the League of Nations issued December 15, 1923:

PLAGUE.

The increase in the prevalence of plague in British India continued during the month of September. The number of cases reported increased from 2,478 for the week ended August 25 to 7,258 for the week ended September 29, and the deaths increased from 1,561 to

4,747 in the same period. The first two weeks in October show a marked decline in the cases and deaths from plague, but this decrease is found wholly in the returns from the Indian States and agencies, for which the reports are not regular, reports for two or more weeks being often received together, and therefore little significance can be attached to this decline at the present time. The increased prevalence is reported chiefly from Bombay Presidency and several of the Indian States, notably Hyderabad State. To a lesser degree there has been an increase in the Central Provinces and the Punjab.

The decrease in the number of deaths from plague in Siam has continued. During the months of April, May, and June the deaths averaged 9 per week, in July and August the average fell to 3 per week, and from September 1 to October 20 the deaths were 1 or 2 a week.

For Madagascar there has been little change in the plague situation during the summer months.

For Egypt a slight increase in the number of deaths from plague is shown for the five weeks from October 1 to November 4 as compared with the previous month of September. In the week ended November 4, 18 cases and 14 deaths were notified, of which 12 fatal cases were in the Province of Kena.

The following report on the plague situation at Malaga (Spain) has been furnished by the Health Department of the Spanish Government:

Number of cases of bubonic plague occurring in Malaga, Spain, November, 1922, to November, 1923.

Month.	Positive cases.	Suspected cases.	Negative cases.	Total.
1922.				
November	.....	1	.....	1
December	.....	4	.....	4
1923.				
January	.....	5	.....	5
February	2	6	.....	8
March	2	1	2	5
April	3	1	.....	4
May	29	3	34	66
June	8	3	5	16
July	.....	.....	2	2
August	.....	.....	3	3
September	5	.....	.....	5
October	2	.....	.....	2
November	1	.....	3	4
Total	52	24	49	125

CHOLERA.

A steady improvement in the cholera situation in British India is indicated during the month of September and the first two weeks of October. The increase, which started in July, reached its peak in the week ended August 11, and the number of deaths reported has steadily declined since that week. In the week ended October

13, 428 deaths were reported, which is the lowest number since February last.

According to information received from the People's Health Commissariat of Russia, dated October 16, the cholera situation in Russia has continued very favorable. A total of 115 certain cases had been reported from January 1 to September 29, and 84 of these occurred in Rostov and the Don region. Only one case had been reported as occurring since August 25, and that was at Rostov in the week ended September 29.

SMALLPOX.

No very noteworthy current development in the smallpox situation is shown in the reports received during November except in Hongkong, where the number of cases reported for the fortnight ended November 17 was 178 and the number of deaths 146. This incidence is higher than any incidence reported for a period of similar length in the 11 years preceding. The occurrence of the epidemic at this season of the year is most unusual in Hongkong. In only one year in the period 1912–1922 has there been any considerable number of cases in November, which was in the big epidemic of 1916–17, when 68 cases were reported. The total number of cases reported during the five preceding years was as follows: 1918, 32; 1919, 27; 1920, 34; 1921, 191; and 1922, 212.

In Switzerland, where the weekly average of cases from September 2 to 29 had fallen to 5, the weekly average for the seven succeeding weeks rose to over 16. In England and Wales the number of cases during October and November was slightly higher than during August and September.

The considerable increase in the prevalence of the disease in Siam which occurred in the latter part of July and the first half of August was not maintained in the latter part of August, September, and October.

DYSENTERY.

With a few exceptions the usual decline in the prevalence of dysentery in the early autumn has appeared. A marked increase during September and October is indicated in Hungary over the preceding months of 1923 and over the corresponding period of 1922, as the following figures show:

Number of cases of dysentery notified in Hungary July 1 to October 15, 1922 and 1923.

Month.	1922	1923	Month.	1922	1923
July	414	198	September	510	1,291
August	940	782	October	206	928

For Czechoslovakia a similar increase in lesser degree is shown in September. The number of cases reported during September, 1923, was 456, as compared with 226 during August and 383 during September, 1922.

In Germany the relative increase over the corresponding period of 1922 is maintained, although a definite decline in the number of cases since the latter half of August is shown.

TYPHOID FEVER.

While in the large majority of countries from which current reports are received the situation is favorable as compared with 1922, the usual summer increase in the prevalence of typhoid and paratyphoid fever has appeared in nearly all of these countries. A higher incidence of the group of diseases included under the term "enteric," as compared with the same period of 1922, is reported in Italy and Germany.

LETHARGIC ENCEPHALITIS.

Such reports as have been received during the last quarter of the year suggest that the downward trend in the prevalence of lethargic encephalitis which was clearly evident during the first three quarters is not being maintained. If the number of cases so far reported for the fourth quarter is reported for the remainder of this period, an increased prevalence will be shown for most of the countries for which reports are available. The figures are not large and undue significance should not be attached to them.

CEREBROSPINAL MENINGITIS.

Such reports as have been received for October and November do not suggest any general change in the prevalence of cerebrospinal meningitis in European countries as compared with the prevalence of the disease shown for the third quarter of the year. In Switzerland, where a slight increase was shown for the third quarter over the two previous quarters, the number of cases has declined, and only 5 cases were reported in the seven weeks ended November 17, as against a total of 36 in the third quarter.

From Tanganyiki Territory no new cases have been reported since August.

SCARLET FEVER.

Taking into account the usual seasonal variation in the prevalence of scarlet fever, such records of preceding years as are available for comparison with 1923 suggest that in the majority of countries the decline of the periodic wave, which reached its crest two or three years ago, is still in progress. In some countries, however, the re-

ported prevalence during 1923 is very slightly below that for 1922, and in a few a definite increase over the preceding year is indicated. It is yet too early to judge of the significance of the increase indicated in these figures from the point of view of a possible periodic increase in the prevalence of the disease. An unusual incidence of the disease in Bulgaria in 1922 and greatly increased incidence in 1923, however, was noted.

DIPHTHERIA.

The decline in the prevalence of diphtheria since the period 1918–1920, which, judging from reports of notifications and such mortality data as are available, was rather general, appears to have continued during 1923 in nearly all the countries included in the current reports coming to the Service of Epidemiological Intelligence. In Czechoslovakia no marked decline is shown, however, and in Bulgaria and Italy the number of cases notified during the second and third quarters of 1923 are somewhat greater than those for the corresponding periods of 1922.

PRINCIPAL CAUSES OF DEATH, 1922.

The Department of Commerce announces that 1,101,863 deaths occurred in 1922 within the death registration area of continental United States, representing a death rate of 11.8 per 1,000 population as compared with the record low rate of 11.6 in 1921.

The death registration area (exclusive of the Territory of Hawaii) in 1922 comprised 37 States, the District of Columbia, and 13 cities in nonregistration States, with a total estimated population on July 1 of 93,241,643, or 85.3 per cent of the estimated population of the United States.

The increase in the rate for influenza and pneumonia (all forms) from 99.8 per 100,000 population in 1921 to 133.5 in 1922 more than accounts for the slight increase in the rate from all causes. Some of the other diseases for which the rates increased are cancer, diabetes, diseases of the heart, nephritis, cerebral hemorrhage, automobile accidents, accidental falls, and accidental burns.

A marked decrease appears in the death rate for diarrhea and enteritis (under 2 years), which was 32.5 per 100,000 population in 1922 as compared with 41.9 in 1921. Some of the other diseases for which the rates decreased are tuberculosis (all forms), typhoid fever, puerperal septicemia, whooping cough, scarlet fever, accidental drowning, and suicides.

Number of deaths and death rates for principal causes, registration area in continental United States, 1921 and 1922, together with the percentage which each cause or group of causes contributed to the total.

Cause of death.	Deaths in the registration area (exclusive of Hawaii).					
	Number.		Rate per 100,000 population.		Per cent of total.	
	1922	1921	1922	1921	1922	1921
All causes [1]	1,101,863	1,032,009	1,181.7	1,163.9	100.0	100.0
Diseases of the heart	154,495	139,264	165.7	157.1	14.0	13.5
Influenza and pneumonia (all forms)	124,441	88,456	133.5	99.8	11.3	8.6
Tuberculosis (all forms)	90,452	88,135	97.0	99.4	8.2	8.5
Nephritis	82,518	75,696	88.5	85.4	7.5	7.3
Cancer and other malignant tumors	80,938	76,274	86.8	86.0	7.3	7.4
Cerebral hemorrhage and softening	80,191	74,111	86.0	83.6	7.3	7.2
Congenital malformations and diseases of early infancy	72,940	74,791	78.2	84.3	6.6	7.2
External causes (suicide and homicide excepted)	65,263	60,896	70.0	68.7	5.9	5.9
Automobile accidents and injuries	11,666	10,168	12.5	11.5	1.1	1.0
Accidental falls	11,237	10,102	12.1	11.4	1.0	1.0
Accidental drowning	5,988	6,489	6.4	7.3	.5	.6
Burns (conflagration excepted)	5,962	5,329	6.4	6.0	.5	.5
Railroad accidents	5,687	5,297	6.1	6.0	.5	.5
Accidental shooting	2,514	2,346	2.7	2.6	.2	.2
Injuries by vehicles other than railroad cars, street cars, and automobiles	1,839	1,821	2.0	2.1	.2	.2
Machinery accidents	1,827	1,573	2.0	1.8	.2	.2
Mine accidents	1,737	1,777	1.9	2.0	.2	.2
Street car accidents	1,491	1,460	1.6	1.6	.1	.1
Excessive heat (burns excepted)	417	946	.4	1.1	[2]	.1
Other external causes	14,898	13,588	16.0	15.3	1.4	1.3
Diarrhea and enteritis (total)	36,873	45,837	39.5	51.7	3.3	4.4
Diarrhea and enteritis (under 2 years)	30,308	37,192	32.5	41.9	2.8	3.6
Diarrhea and enteritis (2 years and over)	6,565	8,645	7.0	9.7	.6	.8
Arterial diseases, atheroma, aneurysm, etc	20,826	19,377	22.3	21.9	1.9	1.9
Diabetes mellitus	17,182	14,933	18.4	16.8	1.6	1.4
Syphilis [3]	15,360	14,252	16.5	16.1	1.4	1.4
Diphtheria	13,659	15,683	14.6	17.7	1.2	1.5
Appendicitis and typhlitis	13,229	12,809	14.2	14.4	1.2	1.2
Suicide (total)	11,053	11,136	11.9	12.6	1.0	1.1
By firearms	3,912	4,122	4.2	4.6	.4	.4
By hanging or strangulation	1,893	1,942	2.0	2.7	.2	.2
By poison	1,846	1,739	2.0	2.0	.2	.2
By asphyxia	1,449	1,401	1.6	1.6	.1	.1
By cutting or piercing instruments	732	712	.8	.8	.1	.1
By drowning	688	710	.7	.8	.1	.1
By jumping from high places	288	271	.3	.3	[2]	[2]
By crushing	110	130	.1	.1	[2]	[2]
Other suicides	135	109	.1	.1	[2]	[2]
Hernia and intestinal obstructing	9,841	9,509	10.6	10.7	.9	.9
Puerperal causes other than puerperal septicemia	9,822	8,970	10.0	10.1	.8	.9
Respiratory diseases other than pneumonia (all forms) and bronchitis	9,301	8,730	10.0	9.8	.8	.8
Bronchitis	8,740	8,014	9.4	9.0	.8	.8
Homicide (total)	7,788	7,545	8.4	8.5	.7	.7
By firearms	5,714	5,509	6.1	6.2	.5	.5
By cutting and piercing instruments	833	768	.9	.9	.1	.1
By other means	1,241	1,268	1.3	1.4	.1	.1
Typhoid and paratyphoid fever	6,981	8,007	7.5	9.0	.6	.8
Cirrhosis of the liver	6,977	6,598	7.5	7.4	.6	.6
Paralysis without specified cause	6,107	5,526	6.5	6.2	.6	.5
Puerperal septicemia	5,335	6,057	5.7	6.8	.5	.6
Whooping cough	5,220	8,070	5.6	9.1	.5	.8

[1] Exclusive of stillbirths.
[2] Less than one-tenth of 1 per cent.
[3] Includes tabes dorsalis (locomotor ataxia) and general paralysis of the insane.

Number of deaths and death rates for principal causes, registration area in continental United States, 1921 and 1922, together with the percentage which each cause or group of causes contributed to the total—Continued.

Cause of death.	Deaths in the registration area (exclusive of Hawaii).					
	Number.		Rate per 100,000 population.		Per cent of total.	
	1922	1921	1922	1921	1922	1921
Rheumatism	4,118	4,274	4.4	4.8	0.4	0.4
Measles	4,042	3,790	4.3	4.3	.4	.4
Meningitis (nonepidemic)	3,397	3,684	3.6	4.2	.3	.4
Malaria	3,336	3,229	3.6	3.6	.3	.3
Scarlet fever	3,256	4,718	3.5	5.3	.3	.5
Dysentery	2,735	3,570	2.9	4.0	.2	.3
Pellagra	2,640	2,541	2.8	2.9	.2	.2
Erysipelas	2,315	2,501	2.5	2.8	.2	.2
Lethargic encephalitis	1,268	1,355	1.4	1.5	.1	.1
Meningococcus meningitis	895	1,296	1.0	1.5	.1	.1
Smallpox	628	641	.7	.7	.1	.1
All other defined causes	101,688	97,550	109.1	110.0	9.2	9.5
Unknown or ill-defined causes	16,510	14,184	17.7	16.0	1.5	1.4

MORTALITY FROM TYPHOID FEVER, TUBERCULOSIS, AND PNEUMONIA IN LARGE CITIES, 1923.

The provisional death rate for 70 large cities (approximately 29,000,000 population) for 1923 was given by the Bureau of the Census [1] as 13 per 1,000, as compared with a rate of 12.6 for 1922 for the same cities, excepting Des Moines, which was added to the registration area in 1923. For 62 of these cities (27,500,000 population) the death rate was 12.1 per 1,000 in 1921—a record low rate.

The following summary for 71 cities, by certain causes of death, shows a typhoid fever death rate of 3.3 per 100,000 population in 1923 against a rate of 3.5 in 1922, the highest 1923 rate being 17.1 for Atlanta and the lowest being zero for Norfolk, in which place no deaths from typhoid fever occurred during 1923. The rate for 1921 (43 cities, approximately 23,500,000 population) was 3.6.

For tuberculosis (all forms) the 1923 death rate was 96.4 per 100,000 population as against 102.9 in 1922, and 104.5 (for 43 cities, approximately 23,500,000 population) in 1921.

For pneumonia (all forms) the 1923 rate was 154.5 as against 126.2 in 1922, and 106.7 (43 cities, approximately 23,500.000 population) in 1921.

These rates are crude rates, no correction having been made for differences in the age or sex distribution of the population or for deaths of nonresidents.

[1] Public Health Reports, vol. 39, No. 2, Jan. 11, 1924, p. 59.

Mortality summary for 71 large cities which reported each week during 1923, deaths from typhoid fever, tuberculosis (all forms), pneumonia (all forms), and violence, and comparison with 1922.

[From the Weekly Health Index, Bureau of the Census, January 12, 1924.]

City.		Typhoid and paratyphoid fever.		Tuberculosis (all forms).		Pneumonia (all forms).		Violence.	
		Number of deaths.[1]	Annual rate.[2]	Number of deaths.[1]	Annual rate.[2]	Number of deaths.[1]	Annual rate.[2]	Number of deaths.[1]	Annual rate.[2]
Total[3]	1923	966	3.3	28,331	96.4	45,407	154.5	27,719	94.3
	1922	1,011	3.5	29,607	102.9	36,341	126.2	27,826	96.7
Akron	1923	3	1.4	74	35.6	219	105.4	138	66.4
	1922	4	1.9	112	53.7	158	75.8	127	61.0
Albany	1923	4	3.4	128	109.4	251	214.4	47	40.2
	1922	1	0.9	133	114.4	155	133.4	117	100.6
Atlanta	1923	38	17.1	239	107.5	644	289.6	294	132.2
	1922	28	12.8	243	111.4	299	137.0	332	152.1
Baltimore	1923	33	4.3	972	126.0	1,541	199.8	679	88.0
	1922	31	4.1	1,000	131.2	1,037	136.0	714	93.6
Birmingham	1923	15	7.7	248	126.9	366	187.3	321	164.3
	1922	24	12.6	266	139.1	235	123.0	299	156.5
Boston	1923	8	1.0	780	101.5	1,324	172.3	743	96.7
	1922	11	1.4	842	110.2	1,342	175.7	835	109.3
Bridgeport	1923	2	1.4	127	88.7	210	146.7	120	83.8
	1922	1	0.7	123	85.7	170	118.4	118	82.2
Buffalo	1923	23	4.3	506	94.5	672	125.5	569	106.3
	1922	20	3.8	544	103.0	545	103.2	512	97.0
Cambridge	1923	4	3.6	118	105.2	186	167.4	94	84.6
	1922	1	0.9	141	127.1	181	163.1	80	72.1
Camden	1923	5	4.0	76	61.4	379	306.1	143	115.5
	1922	9	7.4	115	94.3	210	172.3	140	114.8
Chicago	1923	56	1.9	2,325	80.8	3,714	129.0	2,967	103.1
	1922	31	1.1	2,238	79.0	2,858	100.9	2,791	98.5
Cincinnati	1923	13	3.2	551	136.0	613	151.3	502	123.9
	1922	13	3.2	602	148.7	493	121.8	408	100.8
Cleveland	1923	15	1.7	779	87.9	1,093	123.4	779	87.9
	1922	19	2.2	820	95.9	906	106.0	780	91.3
Columbus	1923	12	4.6	265	101.8	357	137.1	265	101.8
	1922	3	1.2	252	98.6	227	88.9	255	99.8
Dallas	1923	21	11.6	107	58.9	190	104.5	188	103.4
	1922	10	5.8	156	90.7	168	97.7	206	119.7
Dayton	1923	6	3.6	130	78.8	247	149.6	123	74.5
	1922	6	3.7	134	82.8	133	82.2	190	117.4
Denver	1923	14	5.2	566	208.6	484	178.4	251	92.5
	1922	16	6.0	586	219.0	438	163.7	281	105.0
Detroit	1923	40	4.0	975	98.2	1,917	193.1	1,020	102.7
	1922	51	5.1	945	94.8	1,362	136.8	842	84.6
Duluth	1923	4	3.8	50	47.2	102	96.2	46	43.4
	1922	1	1.0	77	74.0	74	71.0	104	99.9
Erie	1923	3	2.7	84	74.8	161	143.4	119	106.0
	1922	2	1.8	96	87.7	121	110.5	141	128.7
Fall River	1923	5	4.1	141	116.9	139	115.3	96	79.6
	1922	4	3.3	137	113.4	200	165.6	104	86.1
Flint	1923	4	3.4	42	35.7	210	178.5	76	64.6
	1922	7	6.3	48	43.0	58	51.9	85	76.0
Fort Worth	1923	7	4.9	72	50.2	142	99.0	90	62.7
	1922	10	8.2	76	62.5	115	94.6	149	122.6
Grand Rapids	1923	2	1.4	77	52.9	190	130.5	108	74.2
	1922	3	2.1	80	55.8	108	75.2	111	77.4
Houston	1923	12	7.8	177	114.4	187	120.8	147	95.0
	1922	14	9.3	168	111.9	95	63.3	205	136.6
Indianapolis	1923	9	2.6	316	92.5	569	166.5	280	81.9
	1922	18	5.4	380	113.4	397	118.5	300	89.6
Jacksonville, Fla	1923	13	13.0	182	182.4	91	91.2	139	139.3
	1922	12	12.3	174	178.2	82	84.0	138	141.4
Jersey City	1923	5	1.6	273	88.6	516	167.4	235	76.6
	1922	6	2.0	258	84.3	420	137.3	280	91.6
Kansas City, Kans	1923	1	0.9	121	104.8	236	204.4	71	61.5
	1922	9	7.9	128	112.5	152	133.6	118	103.7
Kansas City, Mo	1923	25	7.1	345	98.3	609	173.6	412	117.4
	1922	18	5.2	333	96.9	516	150.0	463	134.6
Los Angeles	1923	21	3.1	1,171	174.1	847	125.9	919	136.6
	1922	28	4.4	1,200	189.0	610	96.1	870	137.0
Louisville	1923	9	3.5	278	108.2	588	228.8	228	88.7
	1922	21	8.2	328	127.6	333	129.6	267	104.0
Lowell	1923	3	2.6	101	88.0	262	228.3	73	63.6
	1922	3	2.6	107	93.5	149	130.2	71	62.1

[1] Deaths for 1922 are those that occurred in the calendar year. Deaths for 1923 are those reported in the 52 weeks.

[2] Annual rate per 100,000 population. Allowance has been made in 1923 for the extra day, which must be added to the 52 weeks to give a period of 365 days.

[3] Des Moines not included.

Mortality summary for 71 large cities which reported each week during 1923, deaths from typhoid fever, tuberculosis (all forms), pneumonia (all forms), and violence, and comparison with 1922—Continued.

City.		Typhoid and paratyphoid fever.		Tuberculosis (all forms).		Pneumonia (all forms).		Violence.	
		Number of deaths.	Annual rate.	Number of deaths.	Annual rate.	Number of deaths.	Annual rate.	Number of deaths.	Annual rate.
Lynn	1923	2	2.0	69	67.4	142	138.7	132	128.9
	1922	1	1.0	94	92.4	108	106.2	70	68.9
Memphis	1923	23	13.6	244	143.9	489	288.3	210	123.8
	1922	15	8.9	282	168.0	232	138.2	324	193.0
Milwaukee	1923	5	1.0	294	60.8	634	131.2	348	72.0
	1922	15	3.1	315	66.0	443	92.9	324	67.9
Minneapolis	1923	4	1.0	325	79.7	307	75.2	345	84.6
	1922	8	2.0	311	77.5	331	82.5	353	88.0
Nashville	1923	15	12.3	167	136.6	288	235.5	179	146.4
	1922	21	17.5	190	165.4	150	124.7	179	148.8
New Bedford	1923	1	0.8	116	89.4	284	218.9	73	56.3
	1922	.....	.....	139	108.9	187	146.6	81	63.6
New Haven	1923	8	4.6	79	45.8	275	159.4	117	67.8
	1922	12	7.1	129	75.9	272	160.0	170	100.1
New Orleans	1923	35	8.7	693	169.3	621	153.9	580	143.8
	1922	41	10.3	733	183.5	504	126.1	458	114.6
New York	1923	140	2.4	5,656	95.7	8,207	138.8	5,288	89.5
	1922	133	2.3	5,934	101.7	8,244	141.2	4,836	82.7
Newark, N. J	1923	10	2.3	404	92.3	537	122.7	404	92.3
	1922	13	3.0	339	78.5	521	120.7	352	81.5
Norfolk	1923	.....	.....	153	96.4	194	122.3	46	29.0
	1922	10	8.0	157	125.7	105	84.9	92	73.6
Oakland	1923	8	3.3	134	56.0	202	84.4	183	76.4
	1922	7	3.0	176	75.4	183	78.4	197	84.5
Omaha	1923	11	5.4	129	63.3	423	207.5	176	86.3
	1922	12	6.0	153	76.3	294	146.5	248	123.5
Paterson	1923	4	2.9	110	79.0	247	177.4	125	89.8
	1922	3	2.2	152	109.8	187	135.0	136	98.2
Philadelphia	1923	32	1.7	2,105	109.8	3,298	172.0	1,840	96.0
	1922	53	2.8	2,174	114.7	2,679	141.4	1,682	88.8
Pittsburgh	1923	23	3.7	550	88.9	2,295	371.0	735	118.8
	1922	33	5.4	573	94.2	1,553	255.5	704	115.7
Portland, Oreg	1923	8	2.9	193	70.7	308	112.9	206	75.5
	1922	8	3.0	168	62.4	271	100.7	273	101.4
Providence	1923	2	.8	223	92.3	388	160.5	245	101.4
	1922	.....	.....	196	81.4	343	142.3	229	95.0
Richmond	1923	10	5.5	223	123.5	245	135.7	170	94.2
	1922	9	5.0	240	134.5	235	131.8	173	97.0
Rochester	1923	6	1.9	168	52.8	299	94.0	184	57.9
	1922	8	2.6	166	53.3	312	100.1	256	82.1
St. Louis	1923	32	4.0	639	79.7	1,816	226.5	917	114.4
	1922	35	4.4	701	88.2	1,183	148.8	836	105.2
St. Paul	1923	8	3.3	202	83.7	320	132.7	246	102.0
	1922	8	3.3	218	90.9	200	83.4	215	89.6
Salt Lake City	1923	5	4.0	80	63.5	130	103.3	148	117.6
	1922	4	3.2	81	65.3	177	142.8	136	109.8
San Antonio	1923	18	9.8	417	225.4	259	140.6	105	57.0
	1922	11	6.2	473	265.7	165	92.7	185	103.9
San Francisco	1923	16	3.0	629	117.0	579	107.7	521	96.9
	1922	12	2.3	648	122.3	571	107.8	657	124.0
Seattle	1923	8	2.5	191	60.7	204	64.8	280	88.9
	1922	10	3.2	230	72.8	183	58.0	297	94.1
Spokane	1923	8	7.7	50	47.9	85	81.5	98	94.0
	1922	5	4.8	55	52.5	120	114.8	99	94.7
Springfield, Mass	1923	2	1.4	74	51.4	235	163.4	105	73.0
	1922	3	2.1	84	60.0	142	101.4	109	77.8
Syracuse	1923	4	2.2	96	52.2	253	137.5	171	92.9
	1922	3	1.7	88	48.7	183	101.1	187	103.3
Tacoma	1923	6	5.9	26	25.6	101	99.6	75	73.9
	1922	4	4.0	59	58.8	77	76.7	91	90.7
Toledo	1923	16	6.0	304	113.2	280	104.2	258	96.1
	1922	11	4.2	273	104.8	225	86.3	260	99.7
Trenton	1923	15	11.8	160	125.9	201	158.2	148	116.5
	1922	14	11.2	124	99.1	217	173.5	144	115.1
Utica	1923	1	1.0	60	58.2	140	135.7	53	51.4
	1922	5	4.9	83	81.6	103	101.4	80	78.8
Washington, D. C	1923	26	6.0	582	133.4	1,017	233.1	414	94.9
	1922	22	5.0	586	133.9	541	123.6	491	112.2
Wilmington, Del	1923	3	2.6	65	55.4	218	185.7	24	20.4
	1922	10	8.7	80	69.2	141	122.0	104	90.0
Worcester	1923	5	2.6	134	70.0	284	148.4	40	20.9
	1922	6	3.2	157	83.3	257	136.4	164	87.0
Yonkers	1923	1	.9	94	87.7	118	110.0	68	63.4
	1922	.....	.....	79	75.0	129	122.4	83	78.8
Youngstown	1923	10	7.6	107	81.1	228	172.7	179	135.6
	1922	11	8.3	116	87.6	225	170.0	118	89.1

MORTALITY SUMMARY, INDUSTRIAL INSURANCE COMPANIES, 1921, 1922, 1923.

Summary of the mortality experience of industrial insurance companies for 1921, 1922, and 1923.

[From the Weekly Health Index, January 12, 1924, issued by the Bureau of the Census.]

	Average number of policies.	Death claims for year.[1]	Number of death claims per 1,000 policies in force (annual rate).
1923	54,000,746	532,123	9.9
1922	49,876,490	461,129	9.2
1921	46,941,971	420,781	9.0

[1] Allowance has been made for the extra day which must be added to the 52 weeks to give a period of 365 days.

DEATH RATES IN A GROUP OF INSURED PERSONS.

COMPARISON OF DEATH RATES FOR PRINCIPAL CAUSES OF DEATH, OCTOBER AND NOVEMBER, 1923, AND NOVEMBER AND YEAR, 1922.

The accompanying table is taken from the Statistical Bulletin of the Metropolitan Life Insurance Co. for December, 1923. It presents the mortality experience of the industrial insurance department of the company for October and November, 1923, and for November and year, 1922. The rates for 1923 are based on a strength of over 14,000,000 insured persons.

The Bulletin states: "The low November death rate among Metropolitan industrial policyholders (7.8 per 1,000) emphasizes the very satisfactory health situation now prevailing throughout the United States and Canada. This is the minimum ever recorded in November among this large group. Furthermore, it represents a decline from the October death rate of 8 per 1,000, and this decline has taken place at a time of the year when we expect a seasonal increase.

"Analysis of the death rates for the several principal diseases given in the table fails to bring out a single unsatisfactory item, unless it be cancer. It is true that in a few instances the rate was higher than for November a year ago. But in no instance, except cancer, is the comparison particularly unfavorable if made with more remote years.

"The general death rate in the large cities of the United States in November was 12.2 per 1,000, which is the same as for the corresponding month of last year. There was registered, however, a small increase among the general population over the October figure of this year. Increased prevalence of diphtheria, influenza, measles, scarlet fever, smallpox, and whooping cough was reported throughout the United States as compared with October, although there were

fewer cases of malaria, poliomyelitis, and typhoid fever. As compared with November, 1922, there was more malaria, measles, poliomyelitis, scarlet fever, and smallpox cases, with less diphtheria, influenza, and whooping cough.

Death rates (annual basis) for principal causes per 100,000 lives exposed, October and November, 1923, and November and year, 1922.

Causes of death.	Death rate per 100,000 lives exposed.			
	November, 1923.	October, 1923.	November, 1922.	Year 1922.
Total, all causes	778.8	797.3	817.9	882.9
Typhoid fever	5.1	6.6	6.0	5.7
Measles	1.5	1.0	2.2	4.3
Scarlet fever	3.4	2.2	4.1	4.9
Whooping cough	2.4	2.3	1.8	2.6
Diphtheria	16.9	16.6	25.2	18.0
Influenza	6.8	4.1	7.0	21.7
Tuberculosis (all forms)	88.4	96.4	90.5	114.2
Tuberculosis of respiratory system	81.4	87.7	82.3	103.6
Cancer	71.0	77.4	69.2	72.0
Diebetes mellitus	12.8	14.5	(1)	17.2
Cerebral hemorrhage	55.6	57.5	53.5	62.9
Organic diseases of heart	119.1	114.8	121.4	126.7
Pneumonia (all forms)	59.2	43.6	63.0	73.7
Other respiratory diseases	12.8	8.6	14.8	13.7
Diarrhea and enteritis	6.0	11.7	8.8	10.8
Bright's disease (chronic nephritis)	62.0	65.1	69.3	70.3
Puerperal state	14.2	14.8	15.2	19.0
Suicides	6.0	6.5	4.8	7.5
Homicides	9.0	9.7	5.5	6.3
Other external causes (excluding suicides and homicides)	59.2	67.5	60.1	58.1
Traumatism by automobile	16.7	19.4	15.1	13.6
All other causes	167.4	176.5	195.5	173.3

[1] Not available.

THE "HEALTH NEWS."

A New Publication Issued by the New York State Department of Health.

The New York State Department of Health has inaugurated a policy of furnishing weekly information on current events in public health matters to the health officers, public-health nurses, physicians, organizations, and others interested in public-health work throughout the State, the medium being the Health News, the first number of which is dated January 7, 1924. It is to be published every Monday.

Dr. Matthias Nicoll, jr., State Commissioner of Health of New York, states that—

> Health officers and public-health nurses are to accept the weekly issue of the Health News as authoritative as regards official statements published therein. The department will be very glad to receive from them and from others interested in public health, interesting news items, which should be addressed to the Division of Public Health Education.

The first number augurs signal success for this new health publication. Among the items appearing in that issue were the following, which are of especial interest to health officers:

REFUSES PASTEUR TREATMENT, DIES OF RABIES.

A Poughkeepsie man was bitten on the hand by his own dog in September but refused Pasteur treatment on the ground that he had often been bitten by dogs before and was not afraid of hydrophobia. Early in December he was taken suddenly ill with pains in the back, vomiting, inability to swallow, and other characteristic symptoms of rabies. He died within three days of the onset of the disease. The dog was shot, and two other dogs which had been bitten by it were muzzled and tied up and are being kept under close observation.

"CHILDREN CRY FOR IT."

A health officer of a small town recently administered toxin-antitoxin to all the children in the entering grade of the village school whose parents had signed the consent slip. The parents of one child stubbornly refused to consent, and so when this 6-year old appeared in the line of children to receive the first dose the health officer refused to immunize. The child promptly told him that her parents had changed their minds and had given their consent, whereupon the physician gave the first dose of toxin-antitoxin, "fortunately," as he says, "without any severe reaction."

It turned out later that the child herself had refused to be left out, had taken the whole responsibility on her own 6-year-old shoulders, and had merrily misrepresented her parents' feelings in order that she might receive toxin-antitoxin treatment. Subsequently her parents appeared quite willing for the second and third doses to be given.

NEW FILMS AVAILABLE.

Working for Dear Life.—A new film on periodic physical examination; an excellent popular film. Two reels.

Well Born.—A new film on prenatal care; splendid for expectant mothers and groups of girls and women; suitable also for mixed audiences. Two reels.

Conquering Diphtheria.—A popular film showing nature and action of antitoxin and telling in story form the value of the Schick test and toxin-antitoxin. One reel.

Meeting the Menace of Tuberculosis.—A new film on the care of tuberculosis in a sanatorium; popular and interesting in character, with good photography. Two reels and about one-third of a reel additional, which can be run or omitted if desired. Shows views of typical sanatorium.

Warfare Against the Mosquito.—A new film on control of the mosquito nuisance; very interesting photography, showing life history of mosquito. One reel.

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The following items appear in a subsequent issue:

MILK-BORNE TYPHOID EPIDEMIC PREVENTED.

Remarkably quick work by District State Health Officer Conway in locating a typhoid carrier on a dairy farm in his district undoubtedly prevented a serious milk-borne epidemic of this disease.

About three weeks after the carrier had come to work on the farm the owner developed typhoid fever. An examination of the feces of the former showed the presence of the typhoid bacillus.

Investigation of the carrier's history revealed the fact that he had had typhoid fever 14 years previously. Two years ago he was employed with a mill gang, among whom three or four cases of typhoid developed, with one death.

RABIES IN TOWN OF SUFFERN.

One woman and 12 dogs were bitten by a stray dog before he was killed by the police of the village of Suffern last November.

Health Officer Sitler submitted the head of the animal to the Branch State Laboratory in New York City. On receiving a positive report of rabies he secured Pasteur treatment for the woman and ordered the owners of the 12 dogs to have them tied up. At his suggestion, also, the board of health of Suffern ordered all dogs muzzled when at large. Rabies vaccine was given to those quarantined dogs whose owners were willing to pay for it. One dog which did not receive this treatment developed rabies a month later and bit a man. The owner of this dog was subsequently fined $20 for failing to conform to quarantine regulations.

A similar outbreak of rabies occurred in Suffern last January, when a rabid dog came over the border from New Jersey and bit three persons and at least one dog before he was killed. It is possible that other dogs were infected at that time.

PUBLIC HEALTH EDUCATION—A NEW METHOD.

Commissioner Nicoll has arranged with many motion-picture theaters in the State, through the cooperation of the New York State Motion Picture Owners' Association, to show in the near future slides containing health messages. One of these will be shown at each performance, and a new text will be sent to the theater every week. By this means it is hoped to extend still further to the public a knowledge of health matters. Look for these health messages in your theater, and if they are not shown ask the management to request this service of the Division of Public Health Education.

BOARD OF EDUCATION REQUIRED TO ENFORCE BOARD OF HEALTH VACCINATION REGULATION.[1]

Under the laws of the State of Michigan it is the duty of the board of health, when smallpox exists, to "use all possible care to prevent the spreading of the infection." The charter of the city of Lansing gives to the city board of health the power conferred on health boards by the general laws of the State. During the existence of smallpox in Lansing the city board of health passed a resolution requiring the exclusion from school of all unvaccinated pupils, teachers, and janitors until such time as in the opinion of the board of health the danger from smallpox had passed. Following this the city board of education passed a resolution directing the admission to school of unvaccinated pupils. A mandamus proceeding was then instituted to compel the enforcement of the resolution passed by the board of health. The action of the board of health was upheld by the Supreme Court of Michigan, which also held that mandamus was a proper remedy in such a case.

DEATHS DURING WEEK ENDED JANUARY 12, 1924.

Summary of information received by telegraph from industrial insurance companies for week ended January 12, 1924, and corresponding week of 1923. (From the Weekly Health Index, January 16, 1924, issued by the Bureau of the Census, Department of Commerce.)

	Week ended Jan. 12, 1924.	Corresponding week, 1923.
Policies in force	56, 020, 171	51, 783, 306
Number of death claims	10, 782	11, 593
Death claims per 1,000 policies in force, annual rate	10	11. 7

Deaths from all causes in certain large cities of the United States during the week ended January 12, 1924, infant mortality, annual death rate, and comparison with corresponding week of 1923. (From the Weekly Health Index, January 16, 1924, issued by the Bureau of the Census, Department of Commerce.)

City.	Week ended Jan. 12, 1924.		Annual death rate per 1,000, corresponding week, 1923.	Deaths under 1 year.		Infant mortality rate, week ended Jan. 12, 1924.[b]
	Total deaths.	Death rate.[a]		Week ended Jan. 12, 1924.	Corresponding week, 1923.	
Total	7,986	14.2	14.9	923	1,078	.....
Akron	35	8.8	8.0	6	4	63
Albany[c]	30	13.2	19.1	0	7	0
Atlanta	101	23.1	23.9	17	21	.....
Baltimore[c]	254	16.9	18.5	35	31	102
Birmingham	54	14.0	17.3	6	14	.....
Boston	225	15.1	17.9	35	33	97
Bridgeport	31	11.3	12.7	5	2	78
Buffalo	166	15.9	15.3	23	16	98
Cambridge	34	15.8	14.0	6	2	104
Camden[c]	28	11.6	15.5	4	9	63

[a] Annual rate per 1,000 population.
[b] Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1923. Cities left blank are not in the registration area for births.
[c] Deaths for week ended Friday, Jan. 11, 1924.

[1] People ex rel. Hill., Health Officer *v.* Board of Education of City of Lansing et al., 195 N. W. 95.

Deaths from all causes in certain large cities of the United States during the week ended January 12, 1924, infant mortality, annual death rate, and comparison with corresponding week of 1923. (*From the Weekly Health Index, January 16, 1924, issued by the Bureau of the Census, Department of Commerce*)—Contd.

City.	Week ended Jan. 12, 1924.		Annual death rate per 1,000, corresponding week, 1923.	Deaths under 1 year.		Infant mortality rate, week ended Jan. 12, 1924.
	Total deaths.	Death rate.		Week ended Jan. 12, 1924.	Corresponding week, 1923.	
Canton	20	10.1	.....	5	.....	105
Chicago [c]	815	14.5	14.7	98	135	90
Cincinnati	118	15.1	20.1	7	14	44
Cleveland [c]	196	11.2	12.3	26	34	68
Columbus	67	13.1	21.0	6	11	57
Dallas	47	13.0	12.9	5	7	.....
Dayton	42	12.9	13.2	1	4	17
Denver	102	19.2	16.1	11	8	.....
Des Moines	37	13.3	14.8	4	3	.....
Duluth	22	10.6	6.4	3	3	64
Erie	30	13.5	14.4	3	4	62
Fall River [c]	28	12.1	23.3	5	13	70
Flint	26	10.9	13.3	5	5	86
Fort Worth	28	9.9	10.5	5	6	.....
Grand Rapids	37	13.0	15.0	4	6	62
Houston	51	16.6	10.8	6	9	.....
Indianapolis	89	13.2	14.8	9	16	68
Jacksonville, Fla	34	17.3	17.2	1	6	.....
Jersey City	101	16.9	15.0	12	10	87
Kansas City, Kans	35	15.5	12.2	5	6	100
Kansas City, Mo	121	17.5	14.8	11	11	.....
Los Angeles	274	20.4	18.9	30	30	93
Louisville	104	21.0	18.0	13	14	125
Lowell	35	15.8	18.6	10	8	178
Lynn	26	13.1	14.2	4	1	101
Memphis	51	15.4	21.5	4	4	.....
Milwaukee	93	9.9	13.0	11	16	50
Minneapolis	102	12.7	13.5	9	10	48
Nashville [c]	59	24.9	25.9	5	7	.....
New Bedford	22	8.7	14.0	6	5	94
New Haven	46	13.6	15.1	6	6	78
New Orleans	155	19.7	16.0	11	16	.....
New York	1,497	13.0	12.6	191	184	77
Bronx Borough	141	8.4	10.3	15	22	53
Brooklyn Borough	527	12.5	11.3	74	55	80
Manhattan Borough	668	15.4	15.0	81	96	79
Queens Borough	109	10.2	11.1	11	5	60
Richmond Borough	52	20.7	13.5	10	6	182
Newark, N. J	77	9.0	14.6	8	21	38
Norfolk	29	9.2	11.5	1	6	18
Oakland	58	12.2	11.9	5	11	63
Omaha	51	12.8	16.8	8	8	86
Paterson	40	14.8	17.2	7	6	114
Philadelphia	564	15.1	19.8	70	91	89
Pittsburgh	186	15.5	16.6	23	33	78
Portland, Oreg	74	13.9	9.9	9	10	93
Providence	51	10.9	17.4	3	14	24
Richmond	73	20.7	19.3	4	5	47
Rochester	60	9.6	10.5	4	12	31
St. Louis	244	15.7	13.1	17	6	.....
St. Paul	65	13.9	16.0	6	8	52
Salt Lake City [c]	33	13.4	13.2	1	6	17
San Antonio	66	18.0	12.4	6	10	.....
San Francisco	173	16.5	14.8	4	10	24
Seattle	73	12.1	9.7	3	7	29
Somerville	15	7.8	15.8	1	2	27
Spokane	24	12.0	12.0	0	1	0
Springfield, Mass	48	16.9	11.9	7	1	118
Syracuse	36	10.0	16.1	4	9	50
Tacoma	20	10.1	13.3	3	1	69
Toledo	83	15.7	13.9	10	11	95
Trenton	52	20.9	18.0	8	7	131
Utica	26	12.9	11.1	6	2	130
Washington, D. C	135	16.1	19.4	11	12	63
Waterbury	31	16.1	10.6	6	4	134
Wilmington, Del	35	15.2	18.2	9	4	195
Worcester	51	13.6	14.4	5	7	60
Yonkers	14	6.7	9.2	2	0	44
Youngstown	31	12.2	7.9	3	2	43

[c] Deaths for week ended Friday, Jan. 11, 1924.

PREVALENCE OF DISEASE.

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.

UNITED STATES.

CURRENT STATE SUMMARIES.

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers.

Reports for Week Ended January 19, 1924.

ALABAMA.

	Cases.
Chicken pox	29
Diphtheria	16
Influenza	158
Malaria	16
Measles	424
Mumps	22
Pneumonia	91
Scarlet fever	6
Smallpox	34
Tuberculosis	21
Typhoid fever	13
Whooping cough	27

ARIZONA.

Chicken pox	2
Diphtheria	2
Malta fever	1
Measles	22
Mumps	4
Scarlet fever	25
Tuberculosis	27
Typhoid fever	1

ARKANSAS.

Cerebrospinal meningitis	1
Chicken pox	34
Diphtheria	12
Hookworm disease	3
Influenza	197
Malaria	56
Measles	132
Mumps	17
Paratyphoid fever	1
Pellagra	6
Poliomyelitis	1
Scarlet fever	4
Smallpox	18
Trachoma	1
Tuberculosis	14
Typhoid fever	17
Whooping cough	89

CALIFORNIA.

Cerebrospinal meningitis:	Cases.
Los Angeles	2
San Francisco	1
Tulare County	1
Diphtheria	326
Influenza	39
Lethargic encephalitis:	
Fresno	1
San Francisco	1
Inyo County	3
Measles	472
Poliomyelitis	3
Scarlet fever	343
Smallpox:	
Compton	9
Long Beach	29
Los Angeles	180
Los Angeles County	70
Santa Monica	11
Scattering	45
Typhoid fever	4
Typhus fever—Los Angeles	1

COLORADO.

(Exclusive of Denver.)

Chicken pox	16
Diphtheria	10
Influenza	1
Jaundice (epidemic)	4
Measles	110
Mumps	13
Pneumonia	6
Scarlet fever	37
Smallpox	1
Trachoma	1
Tuberculosis	55
Typhoid fever	3
Whooping cough	7

CONNECTICUT.

	Cases.
Cerebrospinal meningitis	1
Chicken pox	145
Diphtheria	57
German measles	17
Influenza	7
Measles	209
Mumps	83
Pneumonia (lobar)	36
Scarlet fever	172
Tuberculosis (all forms)	38
Typhoid fever	2
Whooping cough	79

DELAWARE.

Chicken pox:	
Wilmington	14
Scattering	2
Diphtheria:	
Wilmington	9
Scattering	1
Malaria	1
Measles	3
Pneumonia	10
Scarlet fever:	
Wilmington	15
Felton	8
Scattering	9
Tuberculosis	8
Typhoid fever	5
Whooping cough	6

FLORIDA.

Diphtheria	15
Influenza	5
Malaria	9
Pneumonia	7
Scarlet fever	1
Smallpox	4
Trachoma	4
Typhoid fever	9

GEORGIA.

Chicken pox	110
Diphtheria	13
Dysentery	2
German measles	5
Hookworm disease	10
Influenza	29
Malaria	2
Measles	220
Mumps	8
Pellagra	1
Pneumonia	28
Scarlet fever	11
Smallpox	89
Tuberculosis (pulmonary)	8
Typhoid fever	4
Whooping cough	110

ILLINOIS.

Cerebrospinal meningitis:	
Cook County	2
Knox County	1
Montgomery County	1

ILLINOIS—continued.

Diphtheria:	Cases.
Cook County	133
Madison County	12
Rock Island County	11
Scattering	66
Influenza	22
Lethargic encephalitis—Cook County	1
Measles	536
Pneumonia	368
Poliomyelitis:	
Cook County	1
Lake County	1
Scarlet fever:	
Adams County	12
Cook County	189
Kane County	12
La Salle County	10
Macon County	14
Scattering	97
Smallpox	5
Tuberculosis	241
Typhoid fever	36
Whooping cough	144

INDIANA.

Chicken pox	94
Diphtheria:	
Allen County	8
Lake County	9
Marion County	17
Noble County	15
St. Joseph County	9
Scattering	40
Influenza	15
Measles	477
Pneumonia	12
Poliomyelitis:	
Martin County	1
Pulaski County	1
Scarlet fever:	
Allen County	11
DeKalb County	8
Lake County	24
St. Joseph County	13
Scattering	75
Smallpox:	
Lake County	9
Marion County	22
Scattering	30
Tuberculosis	39
Typhoid fever	6
Whooping cough	54

IOWA.

Diphtheria	31
Scarlet fever	39
Smallpox	28
Typhoid fever	10

KANSAS.

Cerebrospinal meningitis	1
Chicken pox	139
Diphtheria	40
German measles	3

KANSAS—continued.

	Cases.
Influenza	18
Measles	452
Mumps	122
Pneumonia	60
Scarlet fever	84
Smallpox	17
Tuberculosis	59
Whooping cough	116

LOUISIANA.

Diphtheria	28
Hookworm disease	10
Influenza	53
Measles	183
Pneumonia	37
Smallpox	12
Tuberculosis	21
Typhoid fever	9

MAINE.

Chicken pox	58
Diphtheria	21
German measles	3
Influenza	4
Measles	210
Mumps	83
Pneumonia	7
Scarlet fever	24
Typhoid fever	10
Tuberculosis	6
Vincent's angina	1
Whooping cough	66

MARYLAND.[1]

Chicken pox	223
Diphtheria	59
German measles	3
Influenza	71
Lethargic encephalitis	1
Measles	88
Mumps	13
Pneumonia (all forms)	113
Poliomyelitis	1
Scarlet fever	118
Septic sore throat	1
Tuberculosis	68
Typhoid fever	6
Whooping cough	53

MASSACHUSETTS.

Cerebrospinal meningitis	2
Chicken pox	378
Conjunctivitis (suppurative)	17
Diphtheria	229
German measles	5
Influenza	10
Lethargic encephalitis	1
Malaria	1
Measles	538
Mumps	285
Ophthalmia neonatorum	22
Pneumonia (lobar)	130
Poliomyelitis	2
Scarlet fever	528
Septic sore throat	6

[1] Week ended Friday

MASSACHUSETTS—continued.

	Cases.
Trachoma	2
Tuberculosis (all forms)	183
Typhoid fever	12
Whooping cough	144

MICHIGAN.

Diphtheria	211
Measles	497
Pneumonia	142
Scarlet fever	420
Smallpox	127
Tuberculosis	46
Typhoid fever	6
Whooping cough	61

MINNESOTA.

Cerebrospinal meningitis	1
Chicken pox	175
Diphtheria	100
Influenza	2
Lethargic encephalitis	1
Measles	206
Pneumonia	9
Scarlet fever	306
Smallpox	45
Tuberculosis	29
Typhoid fever	9
Whooping cough	8

MISSISSIPPI.

Diphtheria	10
Scarlet fever	2
Smallpox	5
Typhoid fever	9

MISSOURI.

(Exclusive of Cape Girardeau, Kansas City, and Springfield.)

Cerebrospinal meningitis	3
Chicken pox	67
Diphtheria	84
Influenza	29
Measles	574
Mumps	35
Ophthalmia neonatorum	1
Pneumonia	9
Scarlet fever	145
Septic sore throat	2
Smallpox	4
Tetanus	1
Trachoma	3
Tuberculosis	51
Typhoid fever	11
Whooping cough	126

MONTANA.

Diphtheria	16
Scarlet fever	29
Smallpox	72

NEW JERSEY.

Cerebrospinal meningitis	4
Chicken pox	276
Diphtheria	119

NEW JERSEY—continued.

	Cases.
Influenza	35
Measles	300
Pneumonia	214
Poliomyelitis	1
Scarlet fever	165
Smallpox	31
Trachoma	3
Typhoid fever	6
Whooping cough	35

NEW MEXICO.

Chicken pox	14
Diphtheria	11
Influenza	1
Measles	65
Mumps	4
Pneumonia	7
Poliomyelitis	1
Scarlet fever	5
Smallpox	1
Tuberculosis	23
Typhoid fever	2
Whooping cough	3

NEW YORK.

(Exclusive of New York City.)

Cerebrospinal meningitis	3
Diphtheria	206
Influenza	70
Lethargic encephalitis	4
Measles	1,102
Pneumonia	347
Scarlet fever	405
Smallpox	10
Typhoid fever	29
Whooping cough	467

NORTH CAROLINA.

Cerebrospinal meningitis	1
Chicken pox	152
Diphtheria	37
German measles	10
Measles	921
Scarlet fever	33
Smallpox	99
Typhoid fever	7
Whooping cough	431

OREGON.

Chicken pox	17
Diphtheria:	
Portland	12
Scattering	17
Influenza	2
Measles	290
Mumps	3
Pneumonia	[1] 10
Poliomyelitis	1
Scarlet fever	22
Smallpox:	
Portland	8
Scattering	6
Tuberculosis	11
Typhoid fever	1

[1] Deaths

SOUTH DAKOTA.

	Cases.
Chicken pox	38
Diphtheria	1
Influenza	3
Measles	220
Mumps	13
Pneumonia	4
Scarlet fever	46
Whooping cough	18

TEXAS.

Chicken pox	51
Dengue	10
Diphtheria	54
Influenza	63
Lethargic encephalitis	1
Measles	670
Mumps	44
Paratyphoid fever	3
Pneumonia	11
Scarlet fever	33
Smallpox	17
Tuberculosis	28
Typhoid fever	11
Whooping cough	27

VERMONT.

Chicken pox	43
Diphtheria	1
Measles	84
Mumps	16
Pneumonia	3
Scarlet fever	8
Smallpox	19
Whooping cough	75

WASHINGTON.

Chicken pox	85
Diphtheria	16
German measles	4
Measles	2,977
Mumps	22
Pneumonia	5
Scarlet fever:	
Spokane	12
Scattering	30
Septic sore throat	1
Smallpox:	
Cowlitz County	41
Spokane	33
Scattering	17
Tuberculosis	25
Whooping cough	10

WISCONSIN.

Milwaukee:	
Cerebrospinal meningitis	1
Chicken pox	76
Diphtheria	15
German measles	3
Measles	7
Pneumonia	6
Scarlet fever	47
Smallpox	1
Tuberculosis	10
Whooping cough	43

WISCONSIN—continued.

Scattering:	Cases.
Cerebrospinal meningitis	2
Chicken pox	266
Diphtheria	58
Influenza	33
Measles	280
Pneumonia	33
Scarlet fever	287
Smallpox	32
Tuberculosis	30
Typhoid fever	2
Whooping cough	91

WYOMING.

	Cases.
Chicken pox	18
Diphtheria	1
Measles	196
Pneumonia (broncho)	4
Scarlet fever	10
Whooping cough	28

Reports for Week Ended January 12, 1924.

DISTRICT OF COLUMBIA.

	Cases.
Chicken pox	50
Diphtheria	18
Influenza	1
Measles	8
Scarlet fever	21
Smallpox	1
Tuberculosis	18
Typhoid fever	1
Whooping cough	3

NEBRASKA.

Chicken pox	72
Diphtheria	31
Measles	304
Mumps	9
Scarlet fever	53
Whooping cough	19

NORTH DAKOTA.

Chicken pox	24
Diphtheria	19
Influenza	2
Measles	272
Pneumonia	19
Poliomyelitis	1
Scarlet fever	42
Smallpox	7
Tuberculosis	36
Typhoid fever	4
Whooping cough	3

VIRGINIA.

Smallpox—Nansemond County	2

WISCONSIN.

Milwaukee:	
Chicken pox	96
Diphtheria	19
Measles	4
Ophthalmia neonatorum	1
Pneumonia	4
Scarlet fever	34
Smallpox	1
Tuberculosis	16
Whooping cough	49
Scattering:	
Cerebrospinal meningitis	1
Chicken pox	199
Diphtheria	90
Influenza	24
Measles	305
Pneumonia	59
Scarlet fever	286
Smallpox	12
Tuberculosis	15
Typhoid fever	3
Whooping cough	112

SUMMARY OF CASES REPORTED MONTHLY BY STATES.

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State.	Cerebrospinal meningitis.	Diphtheria.	Influenza.	Malaria.	Measles.	Pellagra.	Poliomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
December, 1923.										
Delaware	.....	20	.....	.....	7	.....	.....	79	.....	10
Florida	2	145	38	180	662	14	.....	13	20	75
Indiana	6	794	121	.....	1,555	.....	3	532	278	157
Louisiana	2	143	125	104	633	1	.....	53	62	21
Maryland	2	227	110	3	259	.....	1	357	5	75
New Jersey	8	684	104	1	751	.....	11	496	3	41
Rhode Island	.....	104	.....	.....	28	.....	.....	245	.....	3
Vermont	.....	21	.....	.....	503	.....	1	67	47	2

SMALLPOX IN NEW JERSEY.

The Department of Health of the State of New Jersey reported, under date of January 14, 1924, an outbreak of smallpox which originated in the case of a colored woman living in Erial, Camden County, who did laundry work and spent part of her time in Philadelphia. From December 11 to January 14, 27 cases occurred in Camden County, N. J., 4 cases in Sussex County, and 1 case in Liberty County. The earlier cases were not recognized as smallpox. The outbreak was discovered by a State district health officer.

CITY REPORTS FOR WEEK ENDED JANUARY 5, 1924.

The weekly morbidity reports from cities will hereafter be presented in the Public Health Reports in a new form.

The cities included in the following table have been selected primarily because of their geographic positions, the aim being to include at least one city in each State and to cover the country as nearly as possible by reports from representative cities. Some cities, however, which should have been included are omitted because reports are not received or do not come regularly.

The weekly reports from other cities having 10,000 population or over will appear in tables which will be published periodically.

The "calculated expectancy," given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever, is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics, or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the calculated expectancy is the mean of the number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1915 is included. In obtaining the calculated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the calculated expectancy.

The cities appearing in the table have an aggregate population of more than 29,000,000.

In the New England cities the diphtheria figures for the week ended January 5, 1924, are somewhat higher than the calculated expectancy. This is also true of the cities in the Mountain, Pacific Coast,

and West South Central States. The table as a whole shows almost exactly the same number of cases of diphtheria for the week as the calculated expectancy, but for the corresponding week of 1923 the number of cases was greater.

Scarlet fever appears to be somewhat more prevalent in cities than last year and the number of cases is greater than the calculated expectancy.

The number of cases of smallpox and typhoid fever is too small to allow comparisons with previous years on the basis of reports for one week only.

City reports for week ended January 5, 1924.

Division, State, and city.	Chicken pox, cases reported.	Diphtheria.		Influenza.		Measles, cases reported.	Mumps, cases reported.	Pneumonia, deaths reported.	Scarlet fever.	
		Cases, calculated expectancy.	Cases reported.	Cases reported.	Deaths reported.				Cases, calculated expectancy.	Cases reported.
NEW ENGLAND.										
Maine:										
Lewiston	3	1	2	0	0	4	.....	1	1	3
Portland	13	1	4	0	0	2	4	1	2	1
New Hampshire:										
Concord	0	1	0	0	0	15	.....	2	2	0
Vermont:										
Barre	2	0	2	0	0	1	.....	1	1	1
Burlington	.....	1	0	0	0	0	.....	3	2	0
Massachusetts:										
Boston	97	64	75	5	0	118	12	23	47	114
Fall River	4	7	9	0	0	2	0	2	3	2
Springfield	7	3	3	0	1	26	6	2	6	15
Worcester	0	4	19	0	0	0	0	8	9	24
Rhode Island:										
Pawtucket	0	3	1	0	0	0	0	1	1	0
Providence	0	16	5	0	1	1	0	4	9	61
Connecticut:										
Bridgeport	.....	9	41	2	2	6	.....	3	4	22
Hartford	.....	6	9	0	0	1	.....	2	7	21
New Haven	10	7	4	0	0	3	15	3	5	20
MIDDLE ATLANTIC.										
New York:										
Buffalo	0	26	12	0	0	11	0	5	20	25
New York	216	272	210	22	9	484	129	194	160	177
Rochester	.....	13	6	.....	2	3	.....	4	12	28
Syracuse	22	12	12	0	0	51	0	3	13	41
New Jersey:										
Camden	.....	5	14	0	0	0	.....	2	3	2
Newark	45	24	13	24	1	17	20	16	21	15
Trenton	1	5	9	0	0	17	0	1	2	0
Pennsylvania:										
Philadelphia	.....	74	97	1	1	17	.....	77	53	59
Pittsburgh	.....	26	26	0	0	11	.....	26	22	34
Reading	.....	4	2	.....	.....	0	.....	0	2	5
EAST NORTH CENTRAL.										
Ohio:										
Cincinnati	15	18	9	0	0	45	6	8	11	19
Cleveland	65	38	43	8	2	12	39	30	40	46
Columbus	.....	7	7	0	1	0	.....	5	6	5
Indiana:										
Fort Wayne	.....	3	6	0	0	1	.....	3	1	6
Indianapolis	0	22	13	0	0	18	47	10	10	2
South Bend	.....	1	10	0	0	0	.....	2	3	12
Terre Haute	2	1	3	0	0	0	0	1	1	2
Illinois:										
Chicago	134	185	114	10	2	48	60	59	175	126
Cicero	15	2	2	0	0	0	0	0	1	3
Springfield	3	3	2	1	1	0	0	4	2	0

City reports for week ended January 5, 1924—Continued.

Division, State, and city.	Chicken pox, cases reported.	Diphtheria.		Influenza.		Measles, cases reported.	Mumps, cases reported.	Pneumonia, deaths reported.	Scarlet fever.	
		Cases, calculated expectancy.	Cases reported.	Cases reported.	Deaths reported.				Cases, calculated expectancy.	Cases reported.
EAST NORTH CENTRAL—continued.										
Michigan:										
Detroit	53	86	88	1	0	79	18	42	76	85
Flint	20	10	6	0	0	73	4	1	12	5
Grand Rapids	.....	6	13	0	0	2	.....	1	6	18
Wisconsin:										
Madison	10	1	1	0	0	0	0	1	2	3
Milwaukee	43	26	14	1	1	5	0	12	40	31
Racine	7	2	5	0	0	0	0	1	4	41
Superior	.....	1	5	0	0	0	.....	2	2	9
WEST NORTH CENTRAL.										
Minnesota:										
Duluth	.....	4	2	0	0	10	.....	3	7	13
Minneapolis	79	22	38	0	0	8	0	8	24	43
St. Paul	.....	16	24	0	0	17	.....	10	13	46
Iowa:										
Sioux City	1	3	6	0	0	10	0	0	4	1
Waterloo	3	0	0	0	0	5	4	0	2	5
Missouri:										
Kansas City	7	12	12	1	0	79	8	22	14	7
St. Joseph	0	5	2	0	0	85	3	2	5	0
St. Louis	22	80	43	1	0	3	12	.....	29	64
North Dakota:										
Fargo	0	0	.....	0	0	.....	.....	0	1	0
Grand Forks	0	1	0	0	.....	0	.....	.....	1	2
South Dakota: Sioux Falls	1	0	1	0	0	273	.....	0	2	2
Nebraska:										
Lincoln	.....	3	14	0	0	91	.....	2	2	4
Omaha	6	6	4	.....	0	13	.....	9	8	2
Kansas:										
Topeka	16	2	0	0	0	14	0	2	3	3
Wichita	5	4	1	0	0	8	99	3	5	2
SOUTH ATLANTIC.										
Delaware: Wilmington	.....	2	3	0	0	0	.....	2	3	8
Maryland:										
Baltimore	114	41	23	19	2	31	4	23	25	53
Cumberland	.....	1	0	0	0	0	.....	2	1	1
Frederick	.....	1	1	0	0	0	.....	0	.....	0
District of Columbia: Washington	56	21	8	0	0	3	0	15	16	16
Virginia:										
Lynchburg	16	1	3	0	0	1	3	1	0	4
Norfolk	0	3	2	0	0	28	0	6	1	11
Richmond	.....	8	5	0	1	3	.....	10	5	5
Roanoke	7	2	2	1	0	1	2	2	1	2
West Virginia:										
Charleston	2	1	0	0	0	1	0	3	2	0
Wheeling	.....	2	5	0	1	1	.....	1	1	8
North Carolina:										
Raleigh	19	1	0	0	0	3	0	0	1	2
Wilmington	0	1	0	0	0	1	0	1	1	2
Winston-Salem	0	0	0	0	0	177	1	2	1	7
South Carolina:										
Charleston	0	2	0	0	0	37	0	3	1	0
Columbia	6	1	0	0	0	138	12	2	1	0
Greenville	0	0	1	0	0	8	2	5	0	0
Georgia:										
Atlanta	0	4	5	2	2	32	0	12	5	3
Brunswick	1	0	0	0	0	0	0	1	0	0
Savannah	2	1	1	0	0	13	0	4	1	0
Florida:										
St. Petersburg	0	.....	0	0	0	58	0	2	.....	0
Tampa	1	1	0	0	0	17	0	.....	1	0

City reports for week ended January 5, 1924—Continued.

Division, State, and city.	Chicken pox, cases reported.	Diphtheria.		Influenza.		Measles, cases reported.	Mumps, cases reported.	Pneumonia, deaths reported.	Scarlet fever.	
		Cases, calculated expectancy.	Cases reported.	Cases reported.	Deaths reported.				Cases, calculated expectancy.	Cases reported.
EAST SOUTH CENTRAL.										
Kentucky:										
Covington	0	1	1	0	0	0	0	1	1	1
Lexington	10	2	0	0	0	0	0	2	1	0
Louisville	.....	11	1	1	1	1	.....	13	5	1
Tennessee:										
Memphis	37	6	8	0	0	24	2	11	2	4
Nashville	0	3	1	0	0	3	0	3	2	0
Alabama:										
Birmingham	7	1	4	6	2	14	13	3	4	3
Mobile	2	1	3	1	0	3	0	2	0	0
Montgomery	.....	1	1	0	0	0	.....	2	0	1
WEST SOUTH CENTRAL.										
Arkansas:										
Fort Smith	0	1	2	0	.....	0	0	.....	1	3
Little Rock	1	1	2	0	.....	2	0	.....	2	2
Louisiana:										
New Orleans	0	14	24	2	3	27	0	5	3	7
Shreveport	0	.....	1	0	0	17	0	3	.....	0
Oklahoma:										
Oklahoma	2	2	2	0	0	4	0	1	3	1
Tulsa	0	1	2	0	.....	0	.....	.....	2	0
Texas:										
Dallas	10	6	11	0	0	304	10	6	2	8
Galveston	0	2	2	0	0	0	0	3	1	0
Houston	.....	3	0	0	0	1	.....	6	1	2
San Antonio	0	1	4	0	0	1	0	5	0	0
MOUNTAIN.										
Montana:										
Billings	2	1	0	0	0	142	0	0	1	4
Great Falls	11	1	1	0	0	17	0	1	1	6
Helena	8	.....	0	0	0	0	0	0	.....	3
Missoula	0	0	2	0	0	0	0	0	1	0
Idaho: Boise	0	0	0	0	0	0	0	0	2	0
Colorado:										
Denver	.....	7	18	0	2	15	.....	18	6	2
Pueblo	0	6	3	0	0	90	0	2	2	2
Utah: Salt Lake City	34	3	2	0	0	36	7	7	4	2
Nevada: Reno	0	(	0	0	0	0	0	0	0	1
PACIFIC.										
Washington:										
Seattle	18	6	5	0	.....	658	1	.....	8	7
Spokane	15	3	5	0	.....	292	0	.....	4	21
Tacoma	1	3	2	0	.....	59	4	.....	4	2
Oregon: Portland	5	8	22	0	0	253	0	8	6	1
California:										
Los Angeles	62	23	65	15	6	16	0	27	11	44
Sacramento	0	2	6	0	0	8	0	2	1	3
San Francisco	.....	15	59	5	2	131	.....	14	13	29

City reports for week ended January 5, 1924—Continued.

Division, State, and city.	Population July 1, 1923, estimated.	Smallpox.			Tuberculosis, deaths reported.	Typhoid fever.			Whooping cough, cases reported.	Deaths, all causes.
		Cases, calculated expectancy.	Cases reported.	Deaths reported.		Cases, calculated expectancy.	Cases reported.	Deaths reported.		
NEW ENGLAND.										
Maine:										
Lewiston	33,790	0	0	0	1	0	0	0	.....	11
Portland	73,129	0	0	0	1	0	0	0	13	22
New Hampshire: Concord	22,408	0	0	0	0	0	0	0	.....	13
Vermont:										
Barre	[1] 10,008	0	0	0	0	0	0	0	4	4
Burlington	23,613	0	3	0	0	0	0	0	.....	7
Massachusetts:										
Boston	770,400	0	0	0	17	1	2	1	4	260
Fall River	120,912	0	0	0	2	0	0	0	4	.....
Springfield	144,227	0	0	0	0	0	0	0	1	33
Worcester	191,927	0	0	0	4	0	0	0	.....	52
Rhode Island:										
Pawtucket	68,799	0	0	0	1	0	0	0	.....	9
Providence	242,378	0	0	0	4	0	0	1	4	63
Connecticut:										
Bridgeport	[1] 143,555	0	0	0	9	0	0	0	.....	29
Hartford	[1] 138,036	0	0	0	2	0	0	0	.....	29
New Haven	172,967	0	0	0	2	0	0	0	6	39
MIDDLE ATLANTIC.										
New York:										
Buffalo	536,718	0	0	0	8	1	1	0	13	134
New York	5,927,625	0	0	0	[2] 96	14	4	2	64	1,393
Rochester	317,867	0	0	0	6	0	0	0	.....	57
Syracuse	184,511	0	0	0	4	0	0	0	5	49
New Jersey:										
Camden	124,157	0	0	0	2	0	0	0	.....	26
Newark	438,699	0	0	0	9	1	0	0	10	99
Trenton	127,390	0	0	0	2	0	0	0	.....	32
Pennsylvania:										
Philadelphia	1,922,788	0	0	0	50	6	4	0	.....	551
Pittsburgh	613,442	0	1	0	7	3	2	1	.....	124
Reading	110,917	0	0	0	0	0	0	0	.....	31
EAST NORTH CENTRAL.										
Ohio:										
Cincinnati	406,312	1	0	0	14	0	0	0	23	139
Cleveland	888,519	2	3	0	19	2	3	1	24	197
Columbus	261,082	0	0	0	4	0	0	0	.....	74
Indiana:										
Fort Wayne	93,573	1	1	0	.....	0	0	0	.....	25
Indianapolis	342,718	3	0	0	5	1	0	1	7	73
South Bend	76,709	0	0	0	0	0	0	0	.....	13
Terre Haute	68,939	0	0	0	1	0	0	0	1	14
Illinois:										
Chicago	2,886,121	1	0	0	43	5	20	4	30	672
Cicero	55,968	0	0	0	0	0	0	0	0	6
Springfield	61,833	0	0	0	0	0	0	0	4	28
Michigan:										
Detroit	995,668	4	10	0	12	3	1	0	15	251
Flint	117,968	1	2	0	1	0	0	0	3	15
Grand Rapids	145,947	1	3	0	2	1	1	0	.....	31
Wisconsin:										
Madison	42,519	0	1	0	0	0	0	0	2	5
Milwaukee	484,595	3	1	0	3	1	1	1	27	55
Racine	64,393	0	0	0	0	0	0	0	1	11
Superior	[1] 39,671	1	7	0	0	0	0	0	.....	7
WEST NORTH CENTRAL.										
Minnesota:										
Duluth	106,289	0	3	0	2	0	0	0	.....	15
Minneapolis	409,125	16	6	0	2	0	1	0	.....	81
St. Paul	241,891	15	14	0	1	1	0	0	.....	52
Iowa:										
Sioux City	79,662	2	0	0	0	0	.....	.....	0	1
Waterloo	39,667	0	1	0	.....	0	1	1	4	.....

[1] Population Jan. 1, 1920.
[2] Pulmonary only.

City reports for week ended January 5, 1924—Continued.

Division, State, and city.	Population July 1, 1923, estimated.	Smallpox.			Tuberculosis, deaths reported.	Typhoid fever.			Whooping cough, cases reported.	Deaths, all causes.
		Cases, calculated expectancy.	Cases reported.	Deaths reported.		Cases, calculated expectancy.	Cases reported.	Deaths reported.		
WEST NORTH CENTRAL—contd.										
Missouri:										
Kansas City	351,819	8	0	0	6	0	0	0	3	99
St. Joseph	78,232	2	0	0	2	0	0	0	.....	23
St. Louis	803,853	2	0	0	9	3	1	0	38	210
North Dakota:										
Fargo	24,841	2	.....	.....	1	0	.....	.....	.....	3
Grand Forks	14,547	1	0	.....	.....	0	0	.....	.....	.....
South Dakota: Sioux Falls	29,206	1	0	0	0	0	0	0	1	6
Nebraska:										
Lincoln	58,761	1	0	0	0	0	0	0	.....	11
Omaha	201,382	4	1	0	1	1	0	0	.....	47
Kansas:										
Topeka	52,555	0	0	0	0	0	0	0	2	10
Wichita	79,261	1	0	0	1	0	0	0	8	36
SOUTH ATLANTIC.										
Delaware: Wilmington	117,728	0	0	0	0	0	0	0	.....	22
Maryland:										
Baltimore	773,580	0	0	0	12	3	1	0	18	212
Cumberland	32,361	0	0	0	1	0	0	0	.....	11
Frederick	11,301	0	0	0	0	0	0	0	.....	3
District of Columbia: Washington	[1] 437,571	0	2	0	4	2	3	1	22	108
Virginia:										
Lynchburg	30,277	0	0	0	0	0	0	0	17	9
Norfolk	159,089	0	0	0	3	0	0	0	4	.....
Richmond	181,044	0	1	0	10	1	0	1	.....	70
Roanoke	55,502	0	1	0	2	0	2	0	0	12
West Virginia:										
Charleston	45,597	0	9	0	1	0	0	0	.....	18
Wheeling	[1] 56,208	0	0	0	2	0	1	0	.....	27
North Carolina:										
Raleigh	29,171	0	0	0	0	0	0	0	.....	5
Wilmington	35,719	0	0	0	0	0	0	1	.....	13
Winston-Salem	56,230	1	0	0	0	0	0	0	13	10
South Carolina:										
Charleston	71,245	0	1	0	3	1	0	0	.....	25
Columbia	39,688	0	3	0	1	0	0	0	.....	23
Greenville	25,789	0	0	0	1	0	0	0	.....	13
Georgia:										
Atlanta	222,963	4	20	0	3	0	0	0	.....	64
Brunswick	15,937	0	0	0	2	0	0	0	.....	6
Savannah	89,448	0	0	0	0	1	0	0	.....	26
Florida:										
St. Petersburg	24,403	.....	0	0	0	.....	0	0	1	11
Tampa	56,050	0	0	0	0	1	0	0	.....	9
EAST SOUTH CENTRAL.										
Kentucky:										
Covington	57,877	0	0	0	1	0	0	0	.....	24
Lexington	43,673	0	0	0	1	0	0	0	.....	19
Louisville	257,671	1	0	0	4	1	0	0	.....	77
Tennessee:										
Memphis	170,067	1	0	0	5	1	1	0	6	66
Nashville	121,128	0	0	0	3	1	4	0	.....	35
Alabama:										
Birmingham	195,901	1	2	0	6	1	0	0	.....	54
Mobile	63,858	0	0	0	1	0	1	1	.....	19
Montgomery	45,383	0	0	0	0	0	0	0	.....	16
WEST SOUTH CENTRAL.										
Arkansas:										
Fort Smith	30,635	0	0	.....	.....	0	0	.....	.....	.....
Little Rock	70,916	0	0	.....	.....	0	0	.....	.....	.....
Louisiana:										
New Orleans	404,575	6	0	0	10	5	1	0	.....	140
Shreveport	54,590	.....	2	0	3	.....	0	0	.....	19

[1] Population Jan. 1, 1920.

City reports for week ended January 5, 1924—Continued.

Division, State, and city.	Population July 1, 1923, estimated.	Smallpox.			Tuberculosis, deaths reported.	Typhoid fever.			Whooping cough, cases reported.	Deaths, all causes.
		Cases, calculated expectancy.	Cases reported.	Deaths reported.		Cases, calculated expectancy.	Cases reported.	Deaths reported.		
WEST SOUTH CENTRAL—con.										
Oklahoma:										
Oklahoma	101,150	2	0	0	1	0	1	1	.....	18
Tulsa	102,018	0	0	.....	.....	0	0	.....	.....	.....
Texas:										
Dallas	177,274	2	0	0	5	0	3	0	2	47
Galveston	46,877	0	0	0	0	1	0	0	.....	16
Houston	154,970	0	0	0	3	0	0	0	.....	35
San Antonio	184,727	0	0	0	7	0	0	0	.....	42
MOUNTAIN.										
Montana:										
Billings	16,927	1	0	0	0	0	0	0	.....	0
Great Falls	27,787	3	2	0	0	0	0	0	.....	7
Helena	[1] 12,037	.....	0	0	0	.....	0	0	.....	5
Missoula	[1] 12,668	0	0	0	0	0	0	0	.....	5
Idaho: Boise	22,806	0	0	0	0	0	0	0	.....	2
Colorado:										
Denver	272,031	9	0	0	11	0	1	0	.....	115
Pueblo	43,519	0	0	0	1	0	0	0	.....	14
Utah: Salt Lake City	126,241	4	0	0	2	0	0	0	1	43
Nevada: Reno	12,029	0	0	0	0	1	0	0	.....	1
PACIFIC.										
Washington:										
Seattle	[1] 315,685	2	0	.....	.....	1	0	.....	1	.....
Spokane	104,573	10	7	.....	.....	0	0	.....	1	.....
Tacoma	101,731	1	4	.....	.....	0	0	.....	.....	.....
Oregon: Portland	275,621	6	3	0	6	1	0	0	.....	.....
California:										
Los Angeles	666,853	2	70	1	29	1	2	0	1	267
Sacramento	69,950	0	0	0	2	1	1	0	.....	25
San Francisco	539,038	1	0	0	20	1	0	0	.....	179

Division, State, and city.	Cerebrospinal meningitis.		Dengue.		Lethargic encephalitis.		Pellagra.		Poliomyelitis (infantile paralysis).			Typhus fever.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Calculated expectancy.	Cases.	Deaths.	Cases.	Deaths.
NEW ENGLAND.													
Massachusetts: Boston	1	0	.....	.....	0	2	.....	.....	.....	.....	.....	.....	.....
Connecticut: Bridgeport	0	0	.....	.....	.....	.....	.....	.....	0	1	0	.....	.....
MIDDLE ATLANTIC.													
New York: New York	2	0	.....	.....	4	3	.....	.....	0	2	0	.....	.....
New Jersey: Newark	0	0	.....	.....	.....	.....	.....	.....	0	1	0	.....	.....
Pennsylvania:													
Philadelphia	0	0	.....	.....	.....	.....	.....	.....	0	0	1	.....	.....
Pittsburgh	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] Population Jan. 1, 1920.

City reports for week ended January 5, 1924—Continued.

Division, State, and city.	Cerebro-spinal meningitis.		Dengue.		Lethargic encephalitis.		Pellagra.		Poliomyelitis (infantile paralysis).			Typhus fever.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Calculated expectancy.	Cases.	Deaths.	Cases.	Deaths.
EAST NORTH CENTRAL.													
Ohio:													
Cincinnati	0	0							0	1	0		
Columbus	0	1											
Indiana: Indianapolis	0	1											
Michigan:													
Detroit	0	0			0	1							
Flint	0	1											
Wisconsin:													
Madison									0	0	1		
Milwaukee	3	3											
WEST NORTH CENTRAL.													
Missouri: St. Louis	1	0											
SOUTH ATLANTIC.													
Virginia: Lynchburg							0	1					
North Carolina: Raleigh	0	1											
South Carolina:													
Charleston	0	0						1					
Columbia	0	0						4					
Georgia:													
Atlanta	0	0						1				1	0
EAST SOUTH CENTRAL.													
Alabama: Birmingham	0	0					0	1	0	1	0		
WEST SOUTH CENTRAL.													
Louisiana: Shreveport								1					
Texas: San Antonio	0	0						1					

[1] Population Jan. 1, 1920.

FOREIGN AND INSULAR.

BRITISH EAST AFRICA.

Outbreak of Plague—Nairobi.

Under date of November 22, 1923, an outbreak of plague was reported in Nairobi and the surrounding rural districts with more than 40 cases occurring in the city and several hundred in the neighboring districts notified from November 1 to 21, 1923. The disease was stated to be confined to natives and Hindus.

Plague—Tanganyika—Uganda.

To October 20, 1923, 34 cases of plague with 25 deaths were reported in Tanganyika under date of November 22, 1923. In Uganda, during the months of August, September, and October, 1923, there were reported 734 cases of plague with 719 deaths.

CANARY ISLANDS.

Plague—Las Palmas.

During the period October 15 to November 15, 1923, 14 cases of plague with 14 deaths were reported at Las Palmas, Canary Islands.

EGYPT.

Status of Plague.

During the period January 1 to December 13, 1923, 1,479 cases of plague with 708 deaths were reported in Egypt. The localities of occurrence in cities, with date of last case, were stated as follows: *Alexandria*, 65 cases with 33 deaths (November 29); *Cairo*, 1 case with 1 death (March 17); *Port Said*, 51 cases with 29 deaths (September 10); *Suez*, 42 cases with 23 deaths (December 6). The remaining cases were distributed in 11 provinces.

JAMAICA.

Smallpox (Reported as Alastrim).

During the week ended December 29, 1923, five new cases of smallpox (reported as alastrim) were notified in the island of Jamaica. Of these, one case was notified at Kingston.

Typhoid Fever—Kingston and Vicinity.

During the same period eight cases of typhoid fever were notified at Kingston and one case was notified in the surrounding country.

MALTA.

Communicable Diseases—November, 1923.

Communicable diseases were reported in the island of Malta during the month of November, 1923, as follows: Bronchopneumonia, 4 cases; pneumonia, 2 cases; trachoma, 37 cases; undulant fever, 60 cases; whooping cough, 213 cases.

TURKEY.

Plague—Constantinople.

During the week ended December 15, 1923, one case of plague, with one death, was notified at Constantinople, Turkey.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended January 25, 1924.[1]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Calcutta	Nov. 18–Dec. 8	31	20	
Madras	Nov. 25–Dec. 8	6	1	
Siam:				
Bangkok	Nov. 18–24	2	.....	

PLAGUE.

Brazil:				
Bahia	Nov. 25–Dec. 8	2	1	
British East Africa:				
Kenya—				
Nairobi	Nov. 1–21	40	.....	In rural districts, several hundred cases.
Tanganyika	Oct. 20	34	25	
Uganda	.....	.....	.....	August-October, 1923: Cases, 734; deaths, 719.
Canary Islands:				
Las Palmas	Oct. 15–Nov. 15	14	14	
Egypt	.....	.....	.....	Jan. 1–Dec. 13, 1923: Cases, 1,479; deaths, 708.
City—				
Alexandria	Jan. 1–Dec. 13	65	33	Date o last case, Nov. 29, 1923.
Cairo	do	1	1	Date of last case, Mar. 17, 1923.
Port Said	do	51	29	Date of last case, Sept. 10, 1923.
Suez	do	42	23	Date of last case, Dec. 6, 1923.
India:				
Karachi	Dec. 2–8	5	4	
Madras Presidency	Nov. 25–Dec. 8	721	435	
Rangoon	Nov. 18–24	3	1	
Indo-China:				
City—				
Saigon	Oct. 28–Nov. 17	18	6	
Java:				
Soerabaya	Nov. 11–17	1	.....	
Siam:				
Bangkok	do	1	1	
Straits Settlements:				
Singapore	do	1	1	
Syria:				
Beirut	Nov. 21–30	1	.....	
Turkey:				
Constantinople	Dec. 9–15	1	1	

[1] From medical officers of the Public Health Service, American consuls, and other sources. For reports received from June 30 to Dec. 28, 1923, see Public Health Reports for Dec. 28, 1923. The tables of epidemic diseases are terminated semiannually and new tables begun.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received During Week Ended January 25, 1924—Continued.

SMALLPOX.

Place.	Date.	Cases.	Deaths.	Remarks.
British East Africa:				
Zanzibar	Oct. 1-31	31	15	In vicinity, 1 case, 1 death. In Mkokotoni district, 30 cases, 14 deaths reported.
Canada:				
Manitoba—				
Winnipeg	Dec. 23-29	3		
Ontario—				
Fort William and Port Arthur	do	1		
Quebec—				
Montreal	Dec. 30-Jan. 5	1		
Chile:				
Valparaiso	Dec. 9-15		1	
China:				
Foochow	Nov. 4-Dec. 8			Present.
Hongkong	Nov. 11-17	90	126	
Manchuria—				
Harbin	Nov. 19-25	3		
Chosen (Korea):				
Seoul	Nov. 1-30	1		
Colombia:				
Buenaventura	Dec. 9-15	2		
India:				
Bombay	Nov. 18-Dec. 1	7	5	
Madras	Nov. 25-Dec. 8	2	1	
Rangoon	Nov. 18-24	1	1	
Indo-China:				
City—				
Saigon	Nov. 4-17	27	9	
Jamaica				Dec. 23-29, 1923: Cases 5.
Kingston	Dec. 23-29	1		
Java:				
West Java—				
Batavia	Nov. 10-16	7	1	
Mexico:				
Mexico City	Dec. 2-8	7		
Vera Cruz	Dec. 25-30		1	
Portugal:				
Lisbon	Dec. 16-22	5		
Oporto	Dec. 9-15	14	8	
Siam:				
Bangkok	Nov. 11-24	10	5	
Spain:				
Valencia	Dec. 9-22	57	5	
Switzerland:				
Berne	Dec. 9-15	3		
Union of South Africa:				
Transvaal—				
Johannesburg	Nov. 25-Dec. 1	1		
Uruguay:				
Montevideo	Oct. 1-31	1		

TYPHUS FEVER.

Chile:				
Valparaiso	Nov. 25-Dec. 15		29	Dec. 24, 1923: In hospital, 34 patients.
Egypt:				
Alexandria	Dec. 3-9	1		
Mexico:				
Mexico City	Dec. 2-8	21		Including municipalities in Federal district.
Spain:				
Barcelona	Nov. 29-Dec. 12		2	
Turkey:				
Constantinople	Dec. 9-15	3		
Yugoslavia:				
Croatia—				
Zagreb	Dec. 2-15	3		
Serbia—				
Belgrade	Nov. 25-Dec. 1	1		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 29, 1923, to January 18, 1924.[1]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India				Oct. 14–Nov. 10, 1923: Cases, 3,343; deaths, 2,217.
Calcutta	Nov. 11–17	10	7	
Rangoon	Nov. 11–Dec. 1	2	2	

PLAGUE.

Azores:				
St. Michael Island	Oct. 20–Nov. 10	9	5	At localities 3 to 9 miles from port of Punta Delgada.
Bolivia:				
La Paz	Oct. 1–31		3	
Brazil:				
Bahia	Nov. 11–17	1	1	
British East Africa:				
Kenya—				
Mombasa	Oct. 14–20	1	1	Infected rats, 2.
Uganda	Aug. 1–Sept. 30	218	211	
Canary Islands:				
San Juan de la Rambla	Dec. 11	1		Locality 52 km. from Teneriffe.
Ceylon:				
Colombo	Nov. 11–24	4	3	Plague rodents, 11.
Ecuador:				
Guayaquil	Nov. 16–30	4	2	Rats taken: 18,316; found infected, 37.
Jipijapa	do			Present.
Egypt:				
City—				
Alexandria	Nov. 26–Dec. 2	2	1	
Hawaii:				
Paauhau				Dec. 14, 1923: One plague rat.
India				Oct. 14–Nov. 10, 1923: Cases, 11,672; deaths, 7,293.
Bombay	Oct. 28–Nov. 17	2	2	
Karachi	Nov. 11–Dec. 1	28	23	
Madras Presidency	Nov. 4–24	305	201	Presidency.
Rangoon	Nov. 4–17	5	3	
Iraq:				
Bagdad	Nov. 11–17	1		
Java				Oct. 1–31, 1923: Deaths, 902.
Province—				
Djokjakarta	Oct. 1–31		56	
Kedoe	do		252	
Pekalongan	do		25	
Samarang	do		218	
Soerabaya	do		3	
Soerakarta	do		348	
Madagascar:				
Tananarive Province	Oct. 1–15	32	28	Bubonic, pneumonic, septicemic.
Tananarive Town	Oct. 1–15	22	22	Oct. 16–29, 1923: Deaths, 11; European, 2.
Peru				Nov. 1–30, 1923: Cases, 23; deaths, 18.
Locality—				
Canete	Nov. 1–30	1	1	
Chepen	do	1		
Chiclayo	do	1	1	
Lima (city)	do	15	12	
Lima (country)	do	4	4	
Lurin	do	1		
Portuguese West Africa:				
Angola—				
Loanda	Oct. 8–28		12	
Siam:				
Bangkok	Nov. 4–10	1	1	
Spain:				
Malaga	Dec. 17	2		
Straits Settlements:				
Singapore	Nov. 18–24	1	1	
Syria:				
Beirut	Nov. 1–10	1		

[1] From medical officers of the Public Health Service, American consuls, and other sources. For reports received from June 30 to Dec. 28, 1923, see Public Health Reports for Dec. 28, 1923. The tables of epidemic diseases are terminated semiannually and new tables begun.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 29, 1923 to January 18, 1924—Continued.

SMALLPOX.

Place.	Date.	Cases.	Deaths.	Remarks.
Algieria:				
Algiers	Nov. 1-30	1		
Bolivia:				
La Paz	Oct. 1-Nov. 30	20	10	
Brazil:				
Pernambuco	Nov. 4-24	14	2	
Rio de Janeiro	Nov. 18-24	3	1	
Sao Paulo	Sept. 3-9	1		
British East Africa:				
Tanganyika Territory	Sept. 30-Oct. 20	8	1	
Uganda	Sept. 1-30	6	1	
Zanzibar	do	85	3	In areas 27 miles from town of Zanzibar.
Canada:				
British Columbia—				
Vancouver	Dec. 2-22	7		
Manitoba—				
Winnipeg	Nov. 25-Dec. 22	18	3	
New Brunswick—				
Madawaska County	Dec. 8-15	1		
Ontario—				
Fort William and Port Arthur.	Dec. 16-22	2		Occurring at Fort William.
Saskatchewan—				
Regina	Dec. 9-15	1		
Ceylon:				
Colombo	Nov. 11-17	1		Port case.
Chile:				
Concepcion	Oct. 1-31		7	Nov. 12-Dec. 3, 1923: Deaths, 5.
Talcahuano	Nov. 26-Dec. 2	3		
China:				
Amoy	Nov. 18-Dec. 1			Present.
Chungking	Nov. 4-24			Present and endemic.
Hongkong	Oct. 28-Nov. 3	47	43	
Manchuria—				
Harbin	Nov. 12-18	2		
Shanghai	Dec. 29			Prevalent.
Colombia:				
Buenaventura	Nov. 18-Dec. 1	6		
Ecuador:				
Esmeraldas	Nov. 16-30	4		
Egypt:				
Port Said	Nov. 24-Dec. 6	1		
Greece:				
Saloniki	Oct. 22-Nov. 4		7	
Guadeloupe (West Indies):				
Basse Terre	Dec. 18			Present.
Marie Galante	do			Off shore island; present.
Pointe à Pitre	do			Present in vicinity.
India				Oct. 14-Nov. 10, 1923: Cases, 2,655; deaths, 548.
Bombay	Oct. 28-Nov. 17	21	7	
Madras	Nov. 4-24	4	1	
Rangoon	Nov. 4-Dec. 1	6	2	
Iraq:				
Bagdad	Oct. 24-Nov. 17	14	8	
Jamaica				Nov. 25-Dec. 15, 1923: Cases, 93.
Kingston	Nov. 25-Dec. 15	2		
Java:				
East Java—				
Soerabaya	Oct. 28-Nov. 3	110	14	
West Java—				
Batavia	Oct. 27-Nov. 9	4	4	
Latvia				Oct. 1-31, 1923: Cases, 3.
Mexico:				
Mexico City	Nov. 25-Dec. 1	6		Including municipalities in Federal District.
Vera Cruz	Nov. 3-Dec. 23		3	
Poland				Oct. 1-31, 1923: Cases, 8.
Portugal:				
Lisbon	Nov. 11-Dec. 15	14	7	Nov. 19-Dec. 8, 1923: Cases, 7; deaths, 6.
Oporto	Nov. 25-Dec. 8	12	6	
Siam:				
Bangkok	Oct. 28-Nov. 10	19	12	
Siberia:				
Dauria Station	Oct. 21			Present. Locality on Chita Railway, Manchurian frontier.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from December 29, 1923 to January 18, 1924—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Sierra Leone:				
Sherbro District—				
Tagbail	Nov. 1-15	3		
Spain:				
Barcelona	Nov. 15-21		1	
Valencia	Nov. 25-Dec. 8	62	4	
Switzerland:				
Berne	Nov. 18-Dec. 1	6		Corrected.
Syria:				
Aleppo	Nov. 25-Dec. 1	1		In vicinity, at Djisr Choughour.
Damascus	Nov. 16-22	1		
Tunis:				
Tunis	Oct. 27-Nov. 2	5	1	
Turkey:				
Constantinople	Nov. 11-17	2		
Union of South Africa				Oct. 1-31, 1923: Colored, cases, 41; deaths, 2; white, cases, 3; total 44 cases.
Cape Province	Oct. 28-Nov. 3			Outbreaks.
Natal	do			Do.
Orange Free State	do			Do.

TYPHUS FEVER.

Algeria:				
Algiers	Nov. 1-30	3	1	
Bolivia:				
La Paz	Oct. 1-Nov. 30	18	2	
Chile:				
Antofagasta	Dec. 2-8	4		
Concepcion	Oct. 1-31		1	
Talcahuano				Dec. 5, 1923: 3 cases under treatment.
China:				
Antung	Nov. 12-Dec. 9	2		
Chungking	Nov. 18-24			Present.
Egypt:				
Alexandria	Nov. 19-25	1		
Cairo	Sept. 10-23	2	3	
Hungary				July 1-Aug. 31, 1923: Cases, 24.
Latvia				Oct. 1-31, 1923: Cases, 12; paratyphus fever, 7; recurrent typhus, 3.
Mexico:				
Mexico City	Nov. 25-Dec. 1	19		Including municipalities in Federal District.
Poland				Sept. 23-Oct. 20, 1923: Cases, 133; deaths, 13.
Turkey:				
Constantinople	Nov. 11-Dec. 1	10		
Union of South Africa				Oct. 1-31, 1923; Colored, 287 cases, 58 deaths; white, 2 cases; total, 289 cases, 58 deaths.
Cape Province				Oct. 1-31, 1923: Colored, cases 245; deaths, 47.
Do	Oct. 28-Nov. 17			Outbreaks.
Natal				Oct. 1-31, 1923: Colored, cases, 4, deaths, 3.
Do	Oct. 28-Nov. 3			Outbreaks.
Durban	Nov. 24	72		Cases occurring among native stevedores in the harbor area of the port and confined to one barracks.
Orange Free State				Oct. 1-31, 1923: Colored, cases, 25; deaths, 8.
Transvaal				Oct. 1-31, 1923: Colored, cases, 13.
Do	Oct. 28-Nov. 3			Outbreaks.
Johannesburg	Nov. 11-17	1		

YELLOW FEVER.

Brazil:				
Pernambuco City	Nov. 16	3	2	

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